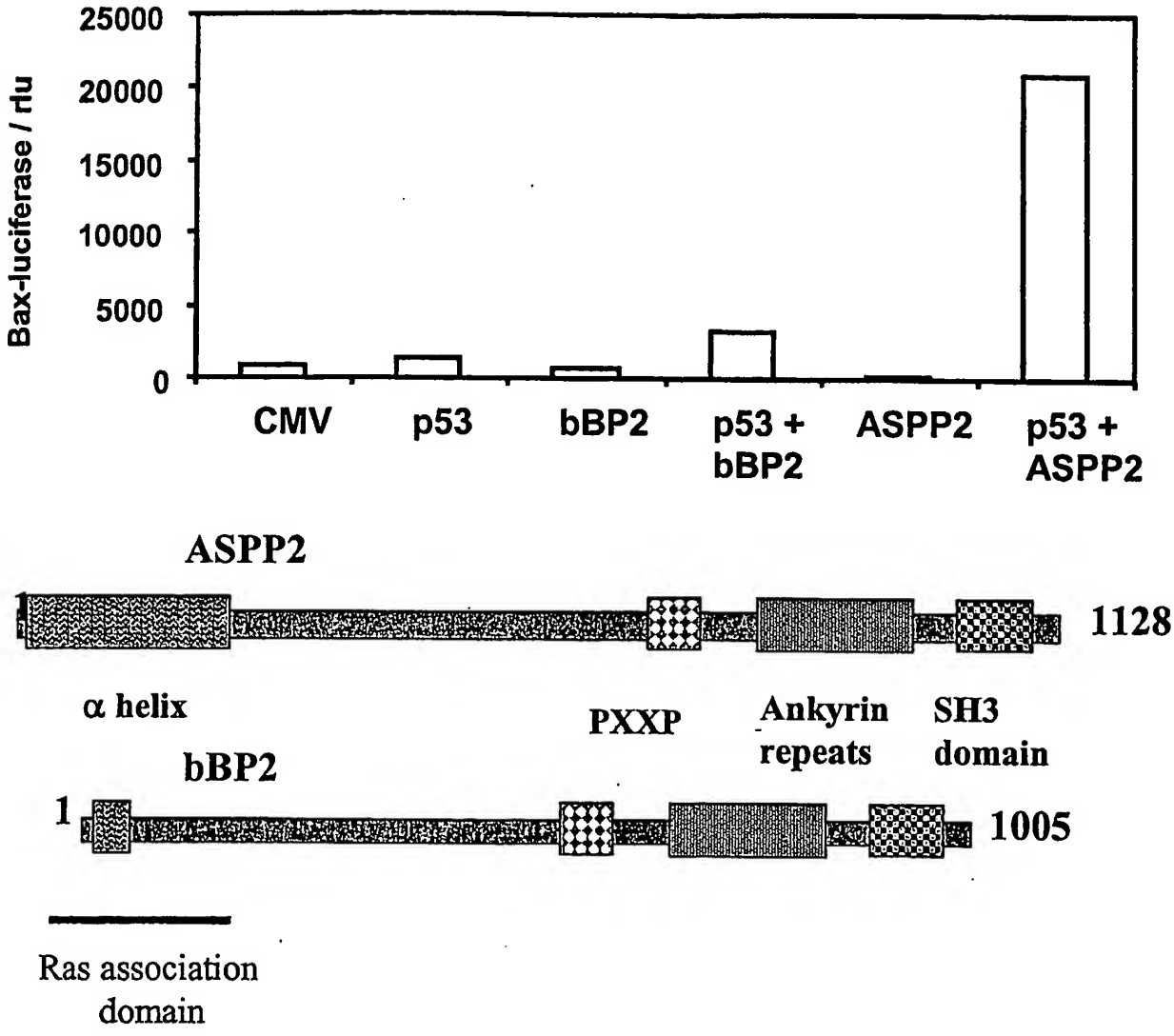

25000
20000
15000
10000
5000
0
Bax-luciferase / rlu
CMV
p53
bBP2
p53 + bBP2
ASPP2
p53 + ASPP2
ASPP2
1
1128
α helix
PXXP
Ankyrin repeats
SH3 domain
bBP2
1
1005
Ras association domain

Figure 1

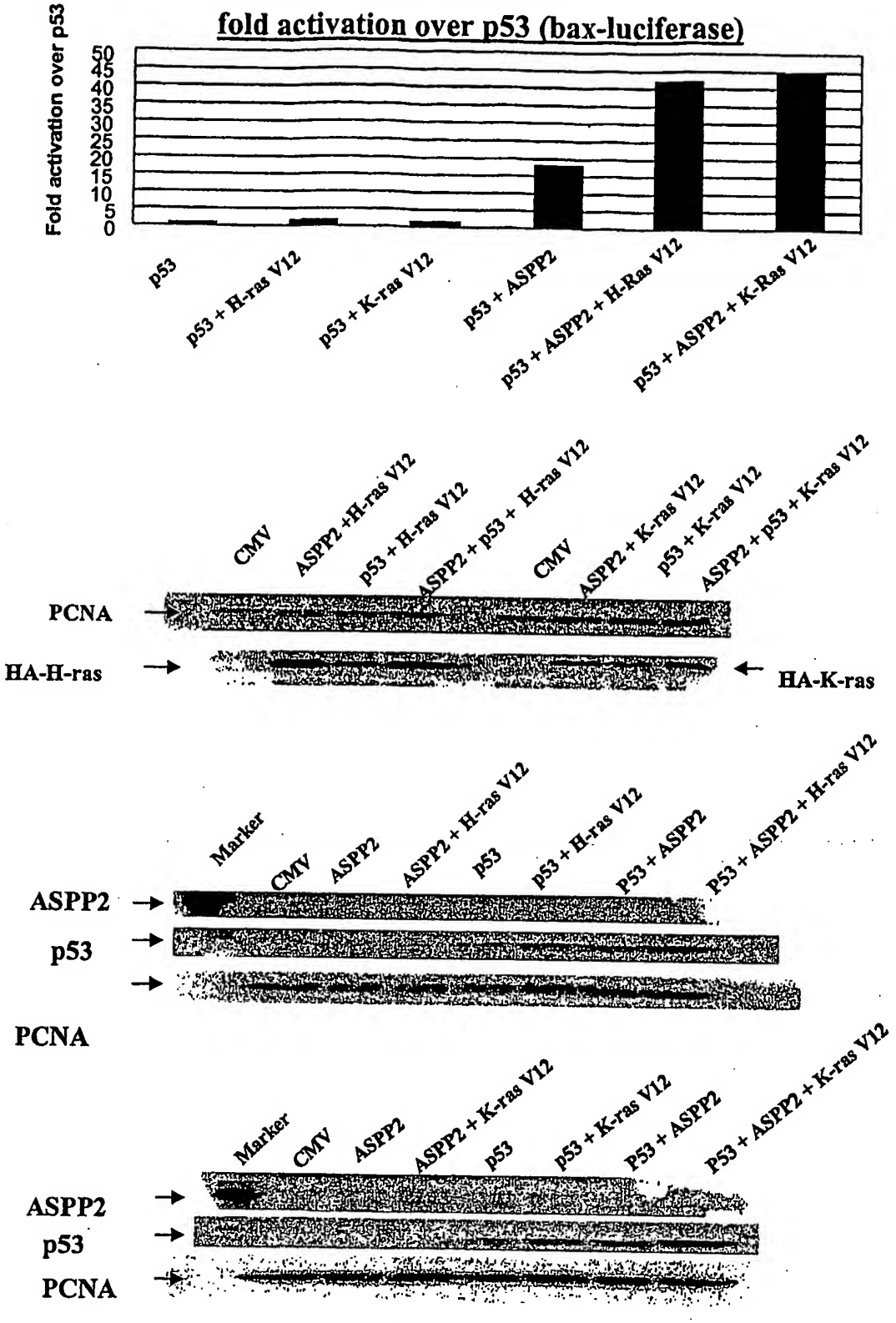

fold activation over p53 (bax-luciferase)
Fold activation over p53
50
45
40
35
30
25
20
15
10
5
0
p53
p53 + H-ras V12
p53 + K-ras V12
p53 + ASPP2
p53 + ASPP2 + H-Ras V12
p53 + ASPP2 + K-Ras V12
CMV
ASPP2 +H-ras V12
p53 + H-ras V12
ASPP2 + p53 + H-ras V12
CMV
ASPP2 + K-ras V12
p53 + K-ras V12
ASPP2 + p53 + K-ras V12
PCNA
HA-H-ras
HA-K-ras
Marker
CMV
ASPP2
ASPP2 + H-ras V12
p53
p53 + H-ras V12
P53 + ASPP2
P53 + ASPP2 + H-ras V12
ASPP2
p53
PCNA
Marker
CMV
ASPP2
ASPP2 + K-ras V12
p53
p53 + K-ras V12
P53 + ASPP2
P53 + ASPP2 + K-ras V12
ASPP2
p53
PCNA

Figure 2

H-ras and K-ras activate ASPP equally

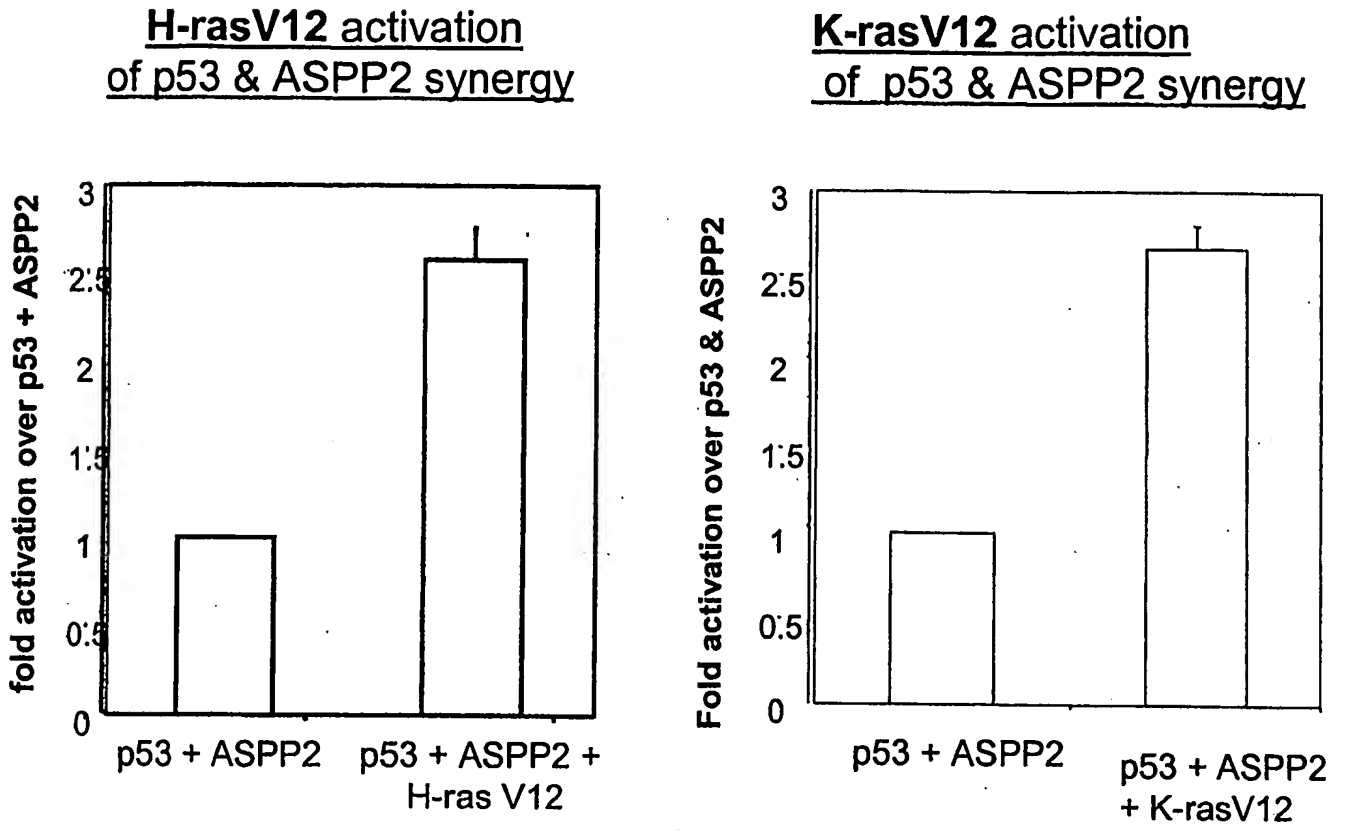


Figure 3

Figure 4A

Promoter specificity

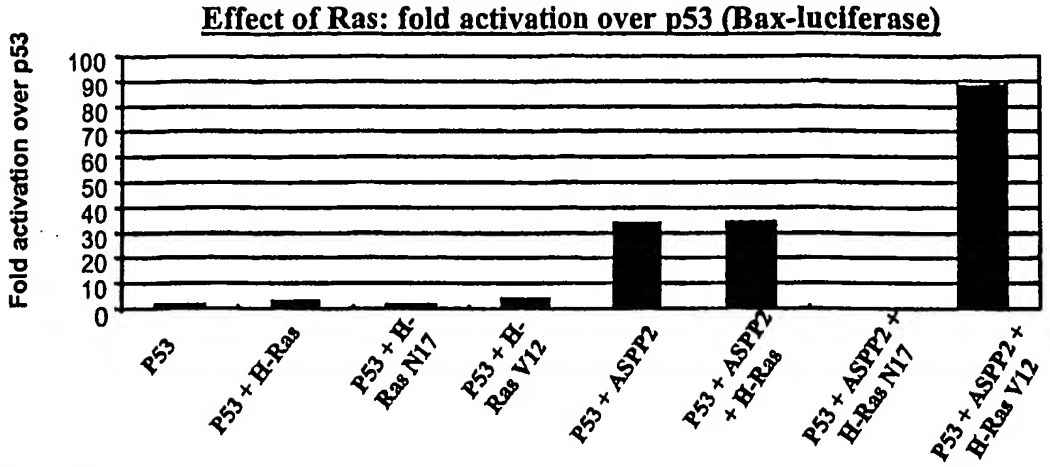


Figure 4B

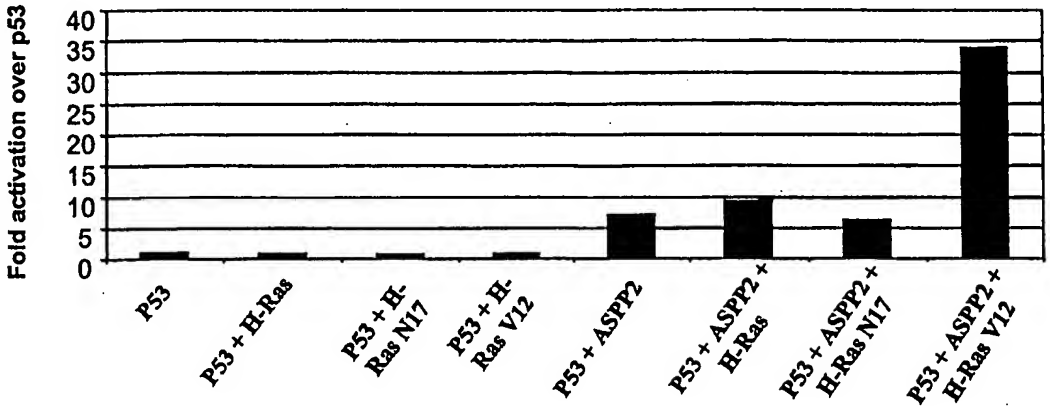


Figure 4C

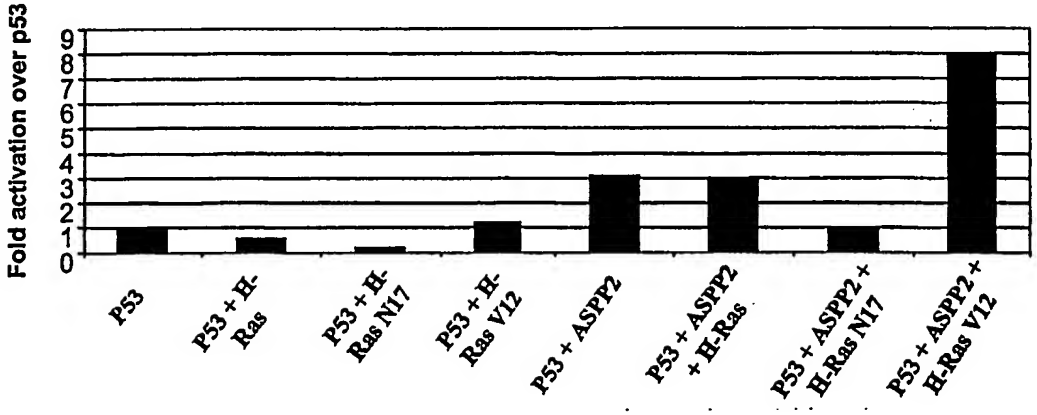


Figure 4D

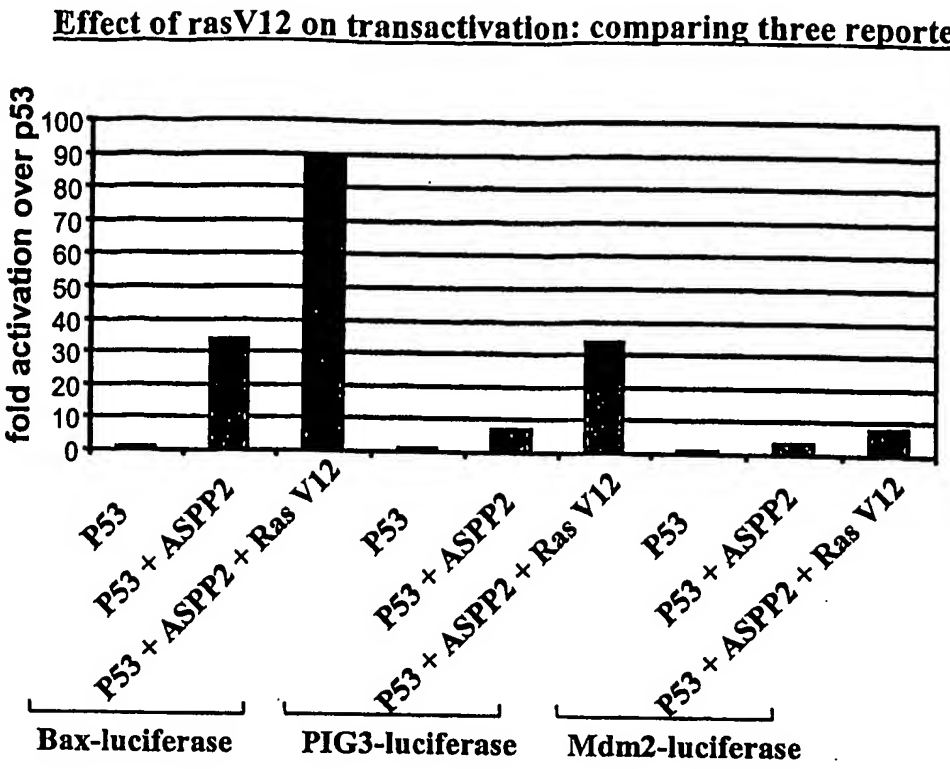


Figure 4E

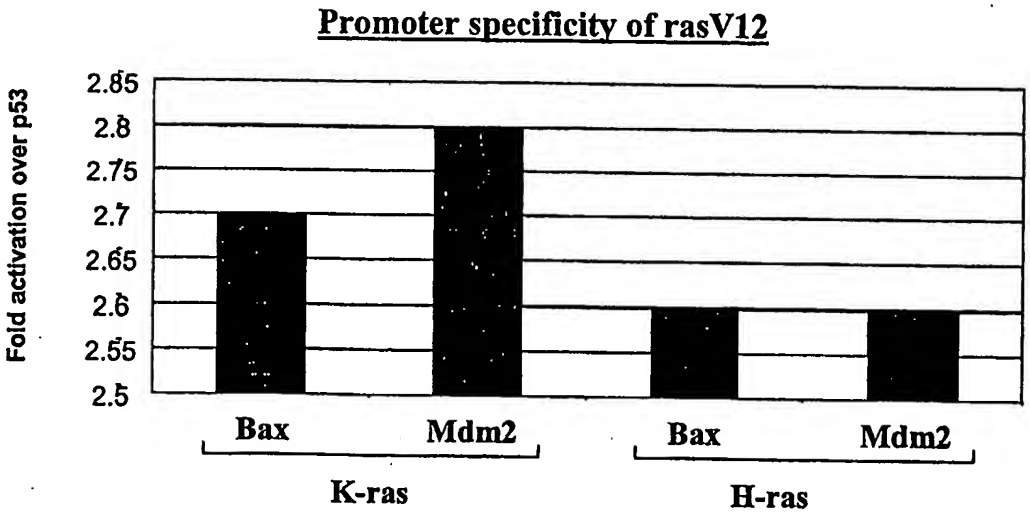


Figure 5A

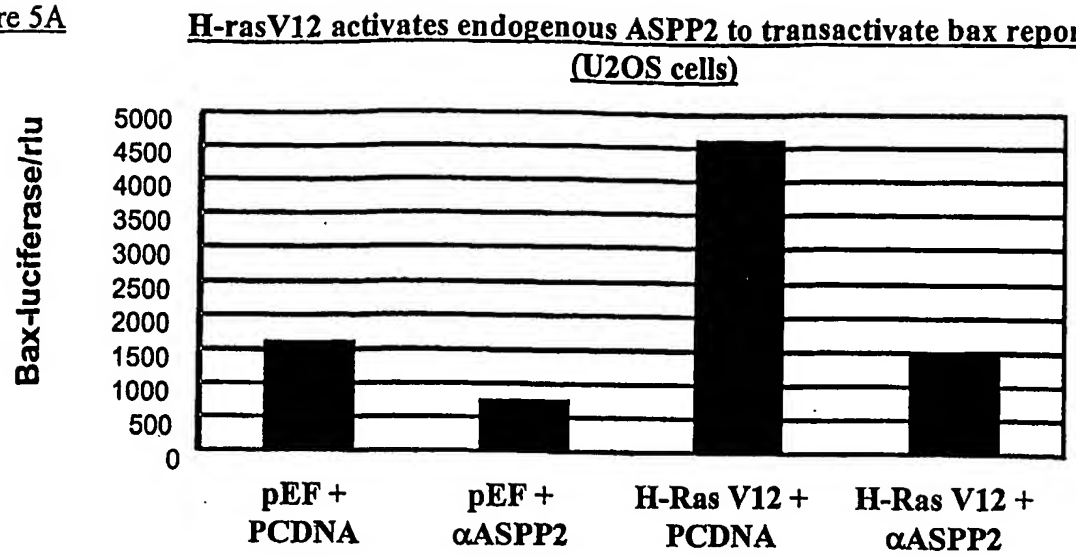
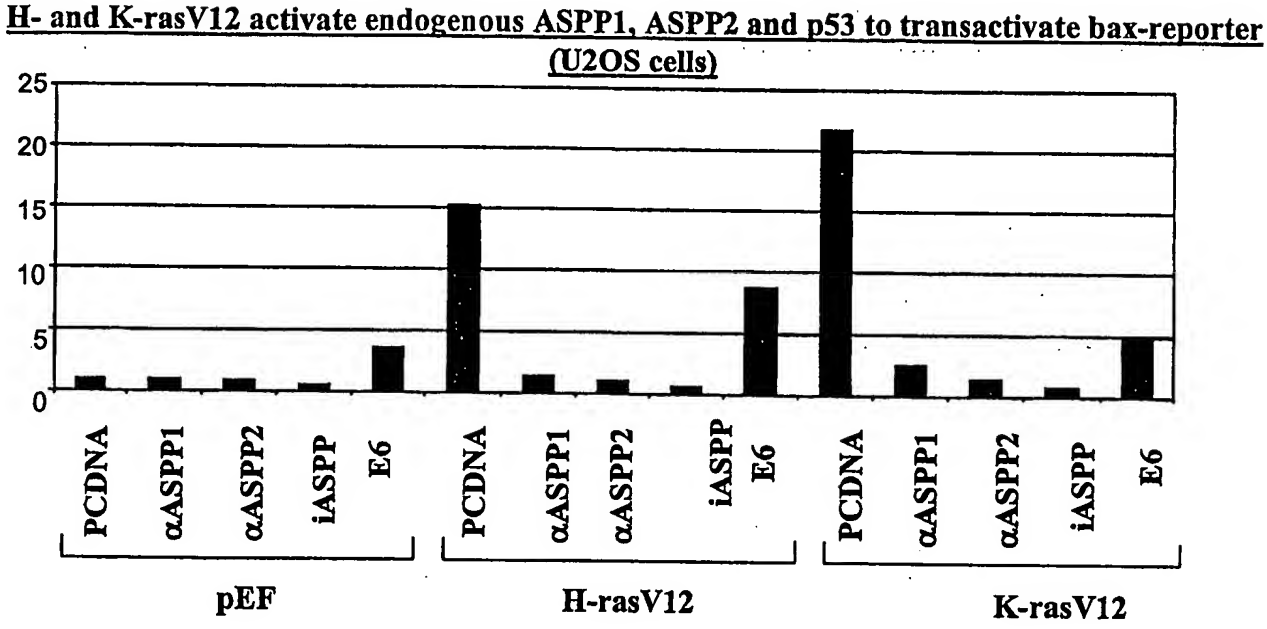


Figure 5B



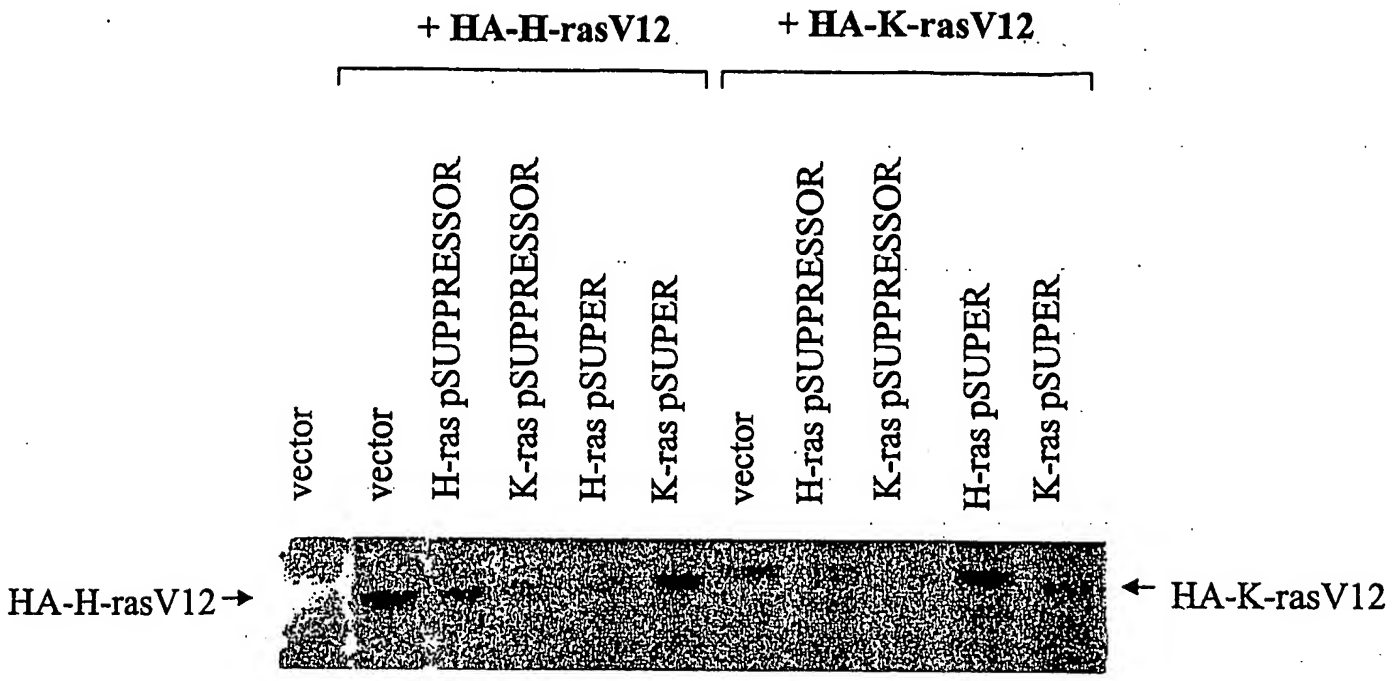

+ HA-H-rasV12
+ HA-K-rasV12
vector
vector
H-ras pSUPPRESSOR
K-ras pSUPPRESSOR
H-ras pSUPER
K-ras pSUPER
vector
H-ras pSUPPRESSOR
K-ras pSUPPRESSOR
H-ras pSUPER
K-ras pSUPER
HA-H-rasV12
HA-K-rasV12

Figure 6

Figure 6B

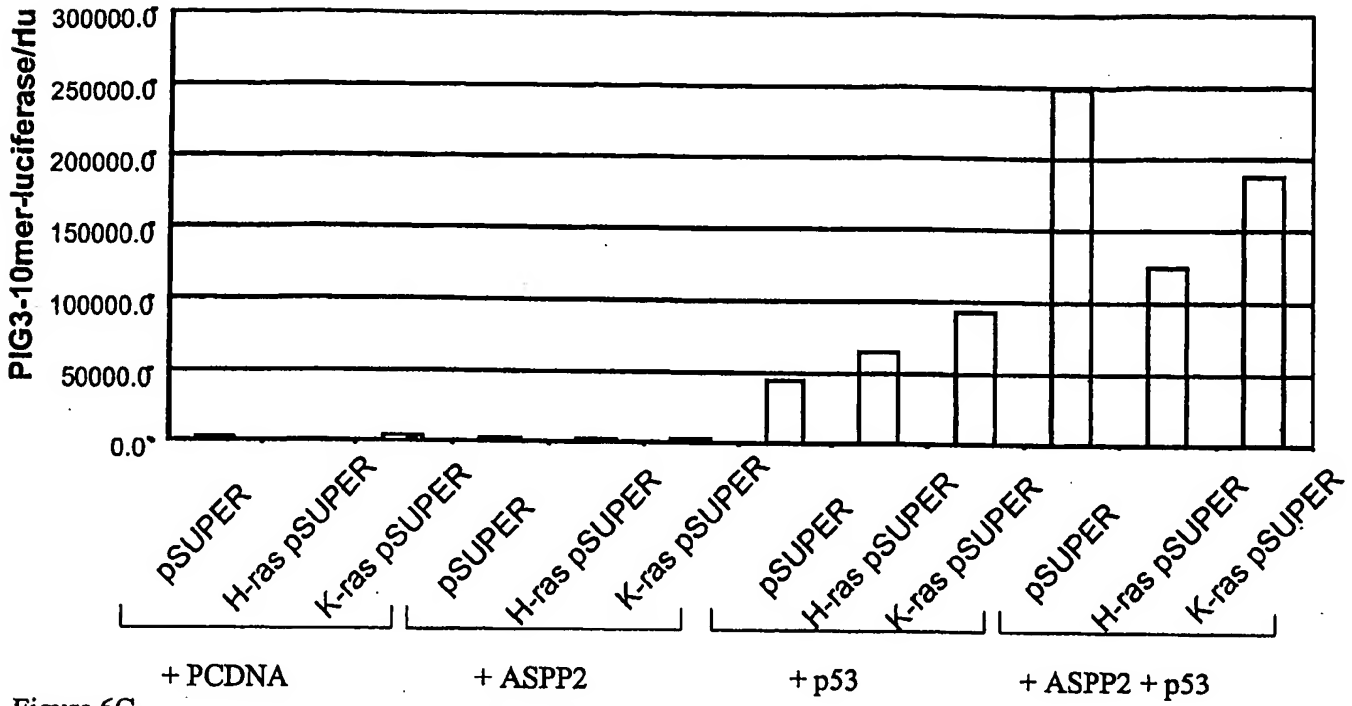


Figure 6C

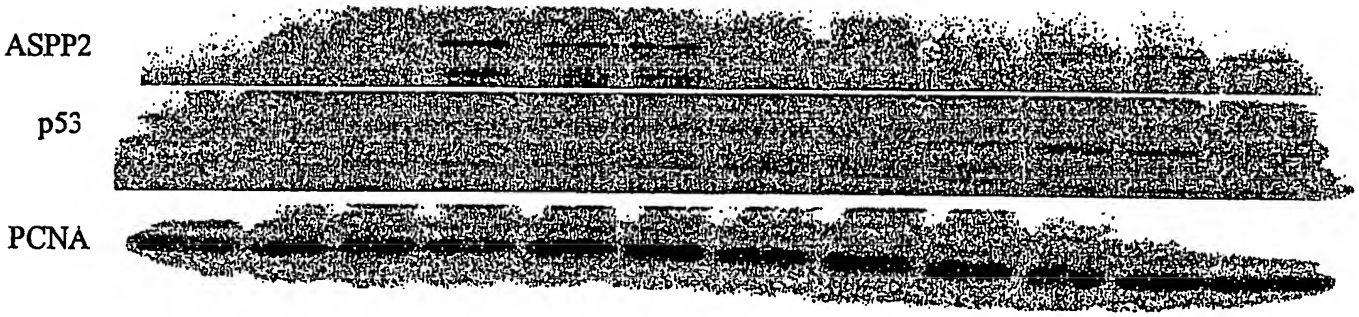


Figure 7A

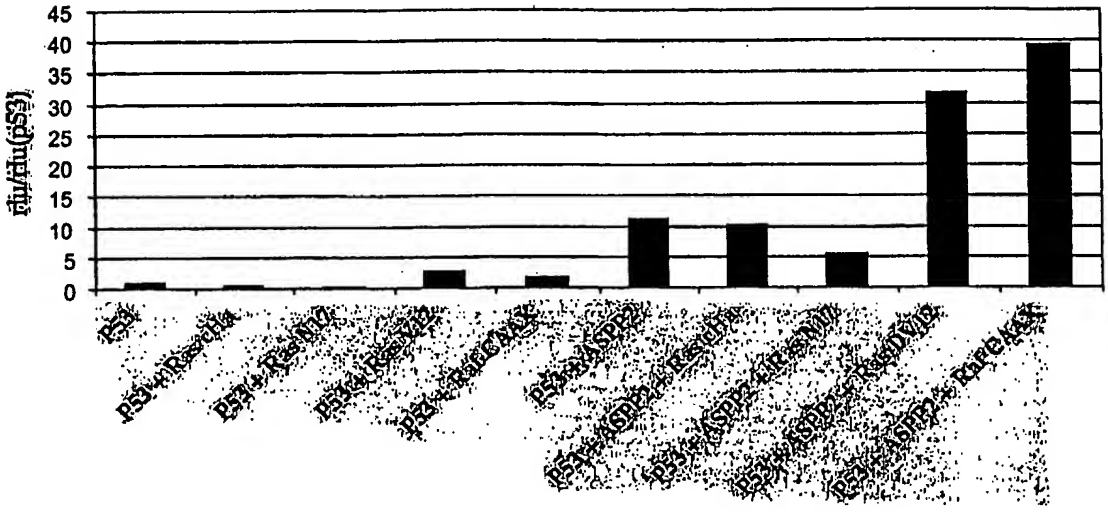

45
40
35
30
25
20
15
10
5
0
fold induction (p53)
p53
p53+Ras-cHa
p53+Ras-N17
p53+Ras-V12
p53+Ras-61L
p53+ASPP1
p53+ASPP1+Ras-cHa
p53+ASPP1+Ras-N17
p53+ASPP2+Ras-V12
p53+ASPP2+Ras-61L

Figure 7B

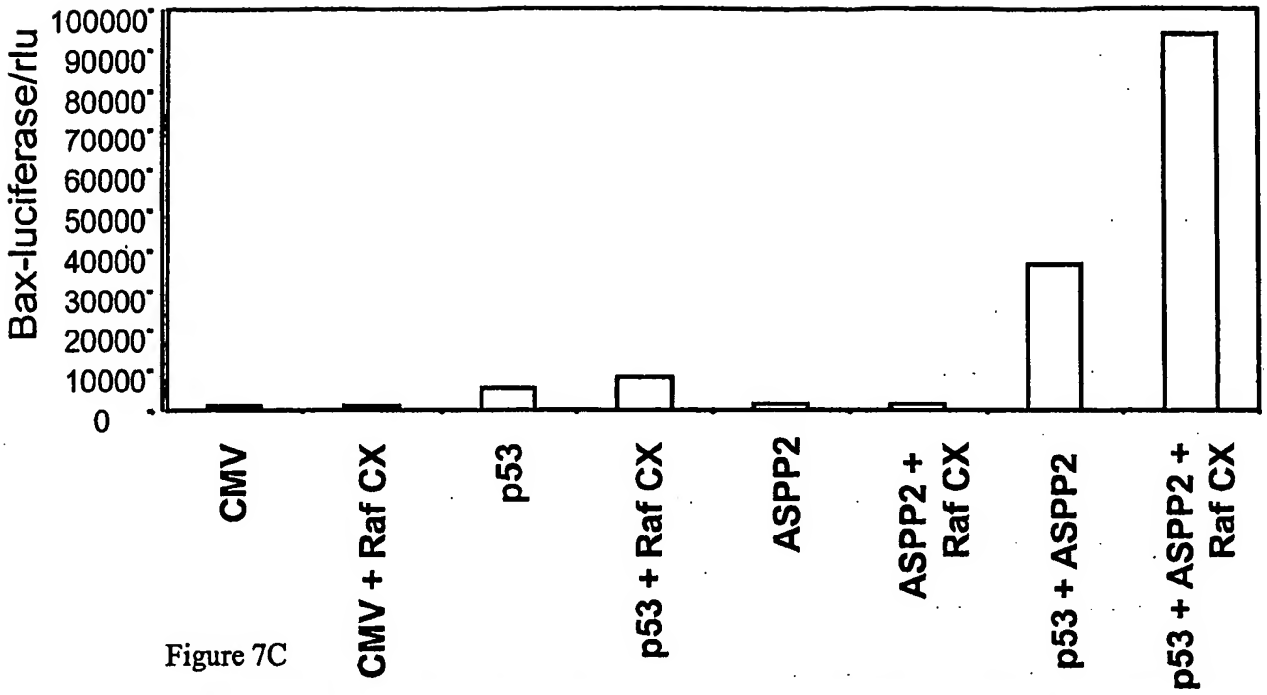


Figure 7C

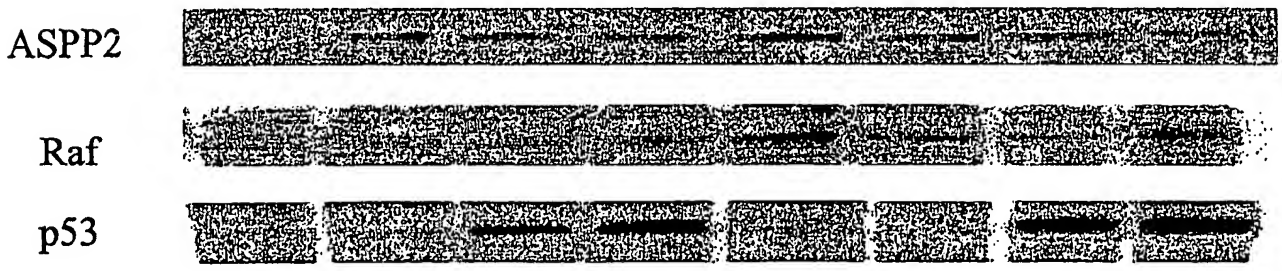


Figure 7d

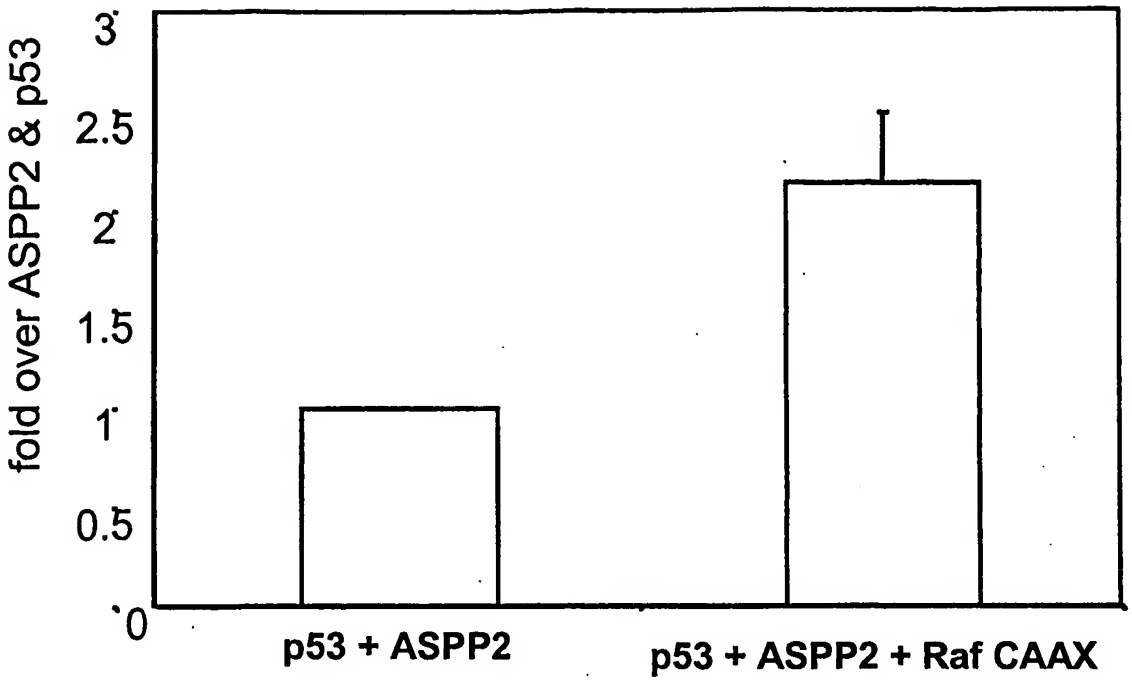


Figure 8A

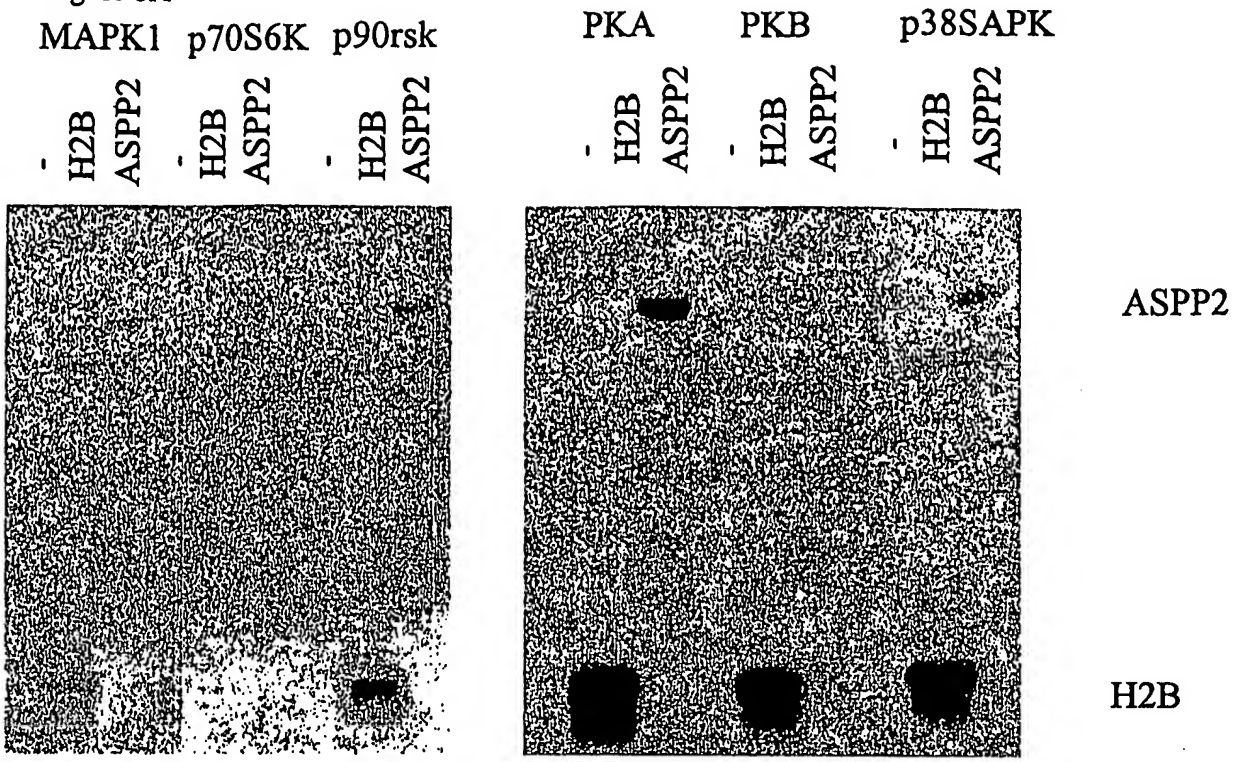


Figure 8B

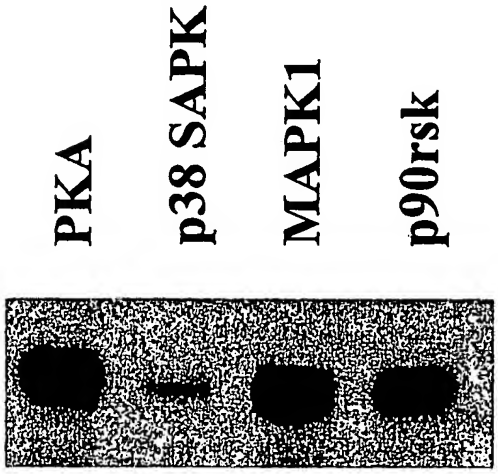


Figure 8C

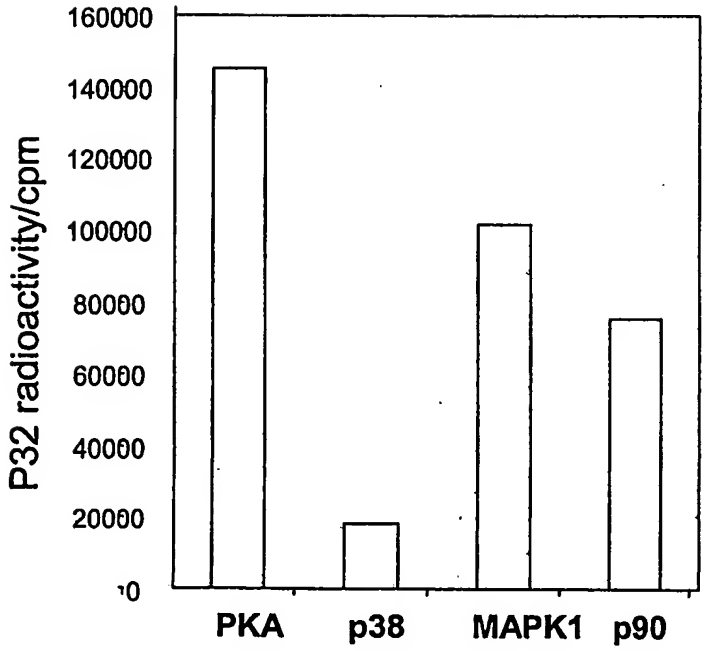


Figure 8D

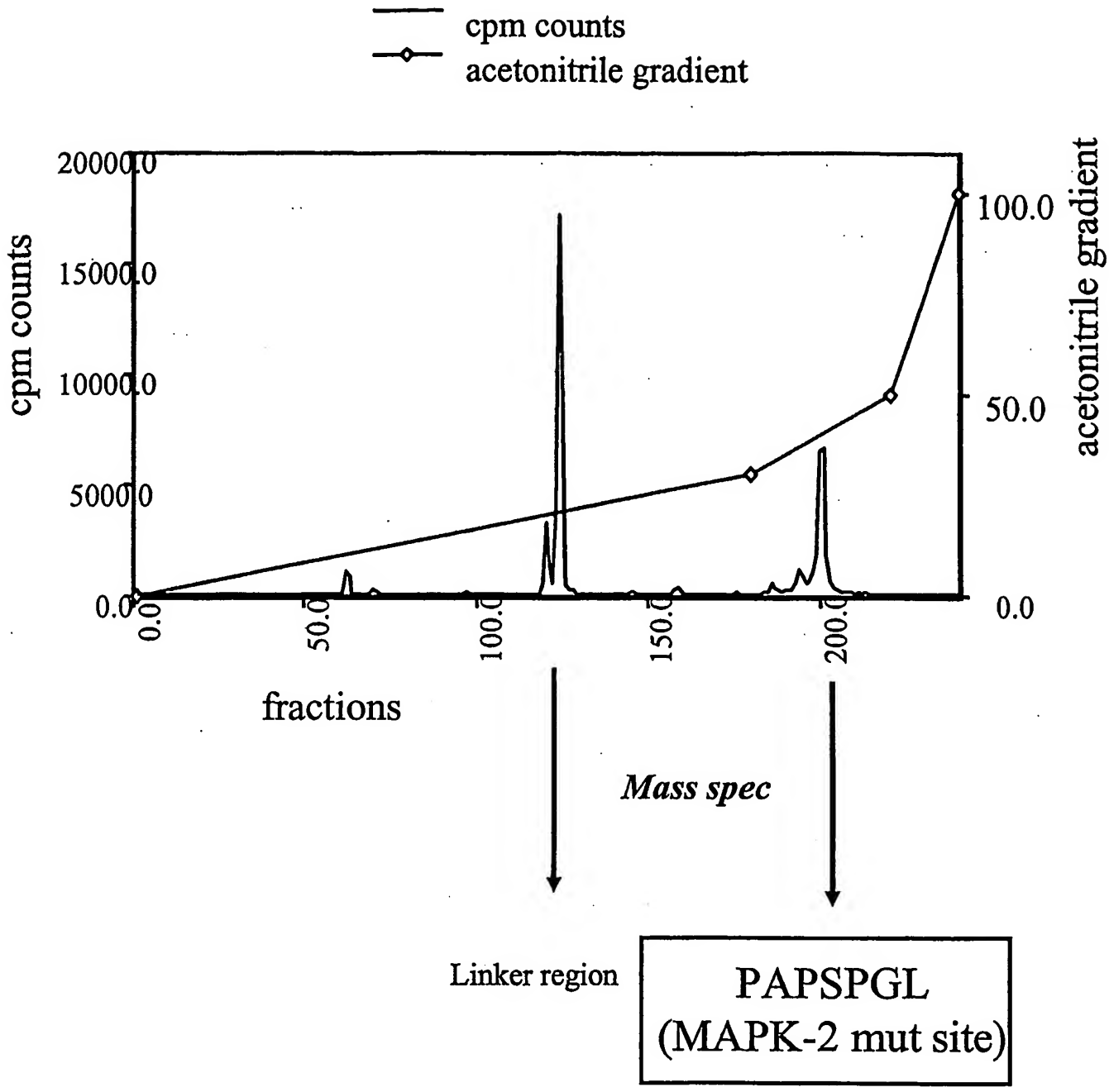

cpm counts
acetonitrile gradient
cpm counts
acetonitrile gradient
fractions
Mass spec
Linker region
PAPSPGL
(MAPK-2 mut site)

Figure 9

C-term of ASPP2:

550 - QPRVLLSPSIPSVGQDQTLSPGSKQESPPAAAVRPFTPQPS
KDTLLPPFRKPQTVAASSIYSMYTQQQAPGKNFQQAVQS
ALTKTHTRGPHFSSVYGKPVIAAAQNQQQHPENIYSNSQ
GKPGSPEPETEPVSSVQENHENERIPRPLSPTKLLPFLSNP
YRNQSDADLEALRKKLSNAPRPLKKRSSITEPEGPNGPNI
QKLLYQRTTIAAMETSVPSYPSKSASVTASSESPVEIQNP
YLHVEPEKEVVSLVPESLSPEDVGNASTENSDMPAPSPGL
DYEPEGVPDNSPNLQNNPE - 849

S —— MAPK sites
SS —— PKA site

Figure 10A

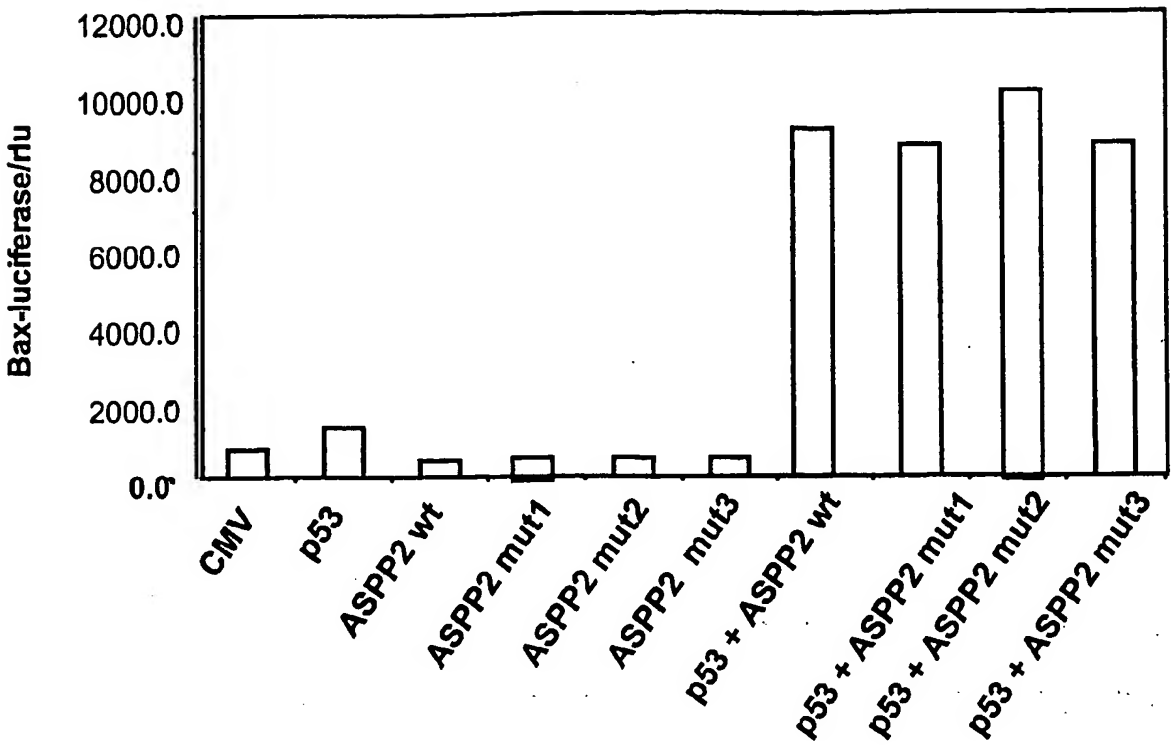


Figure 10B

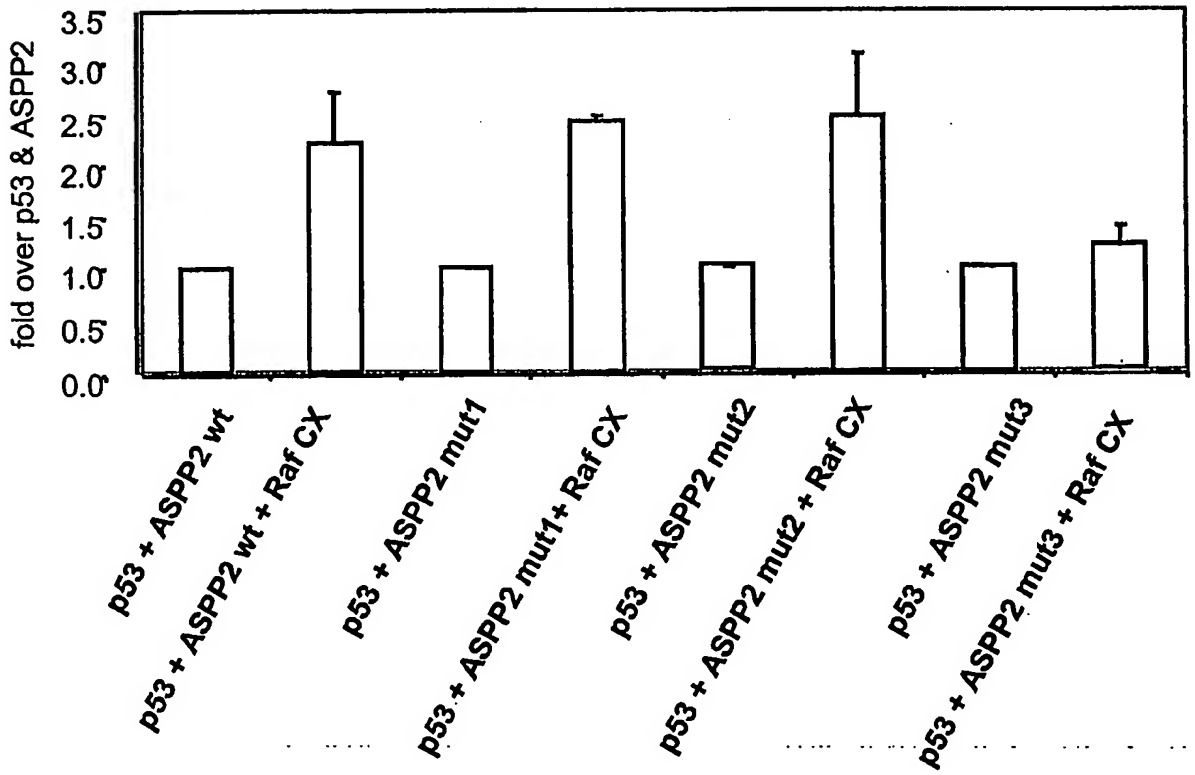


Figure 11A

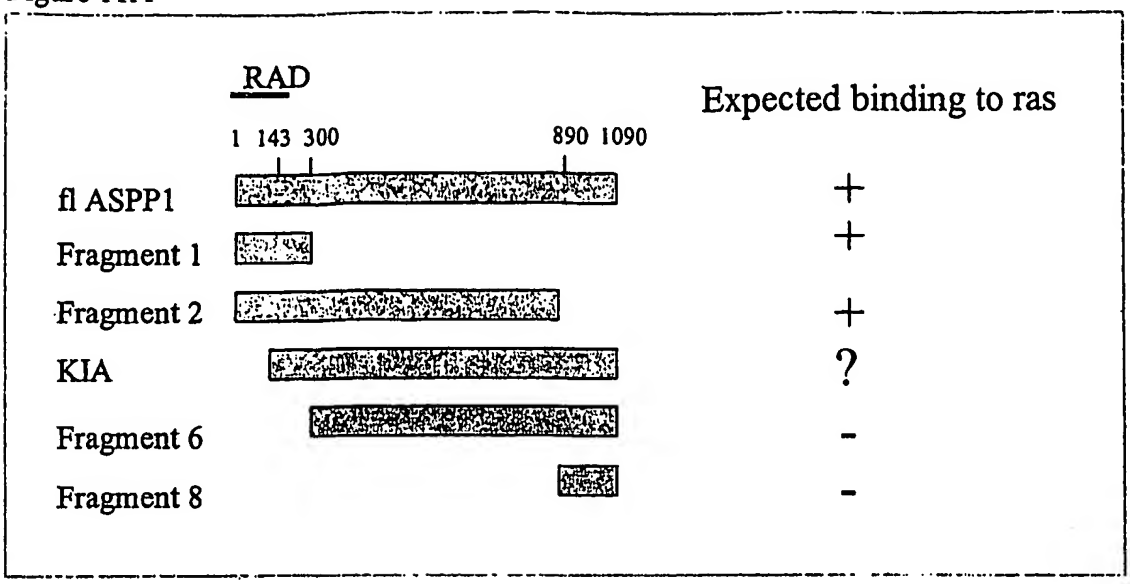


Figure 11B

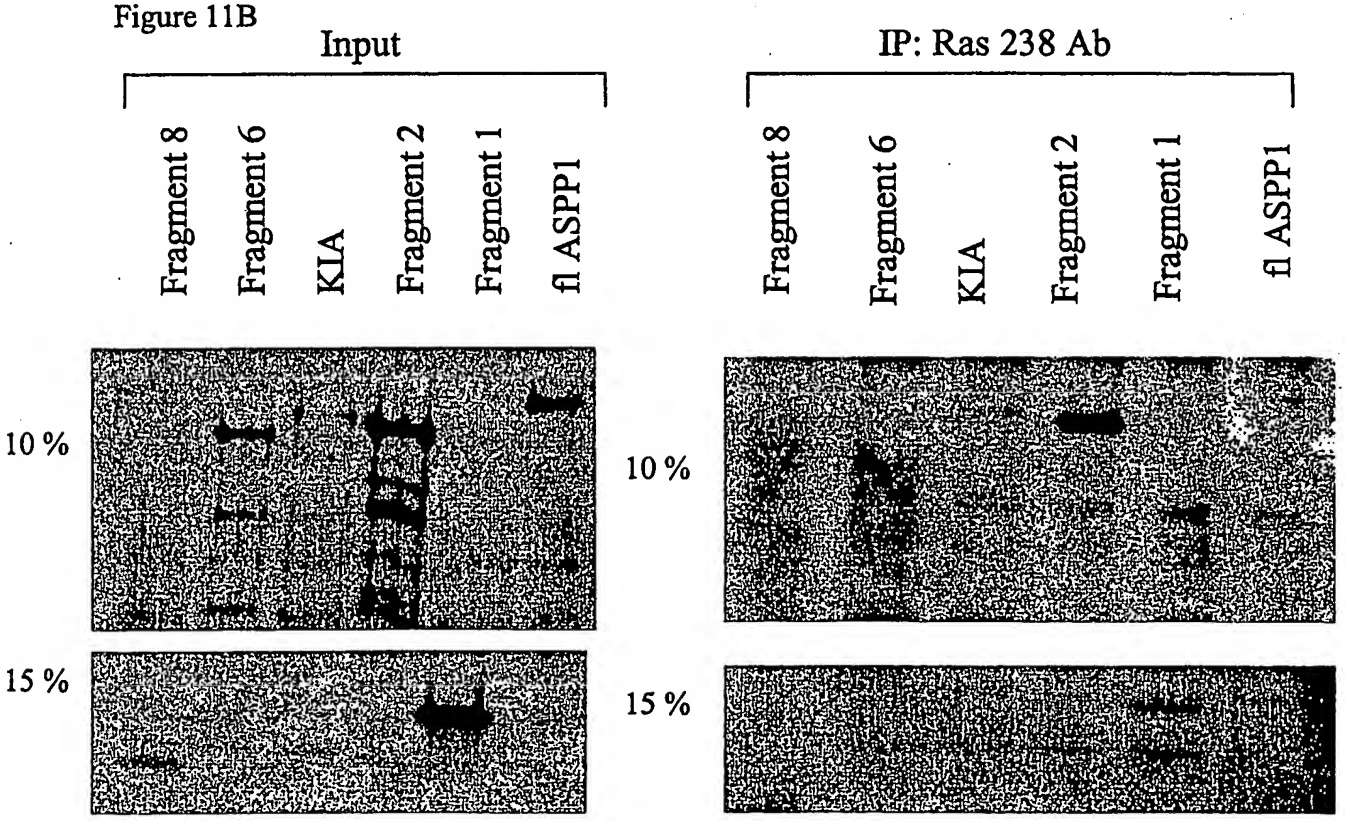


Figure 12

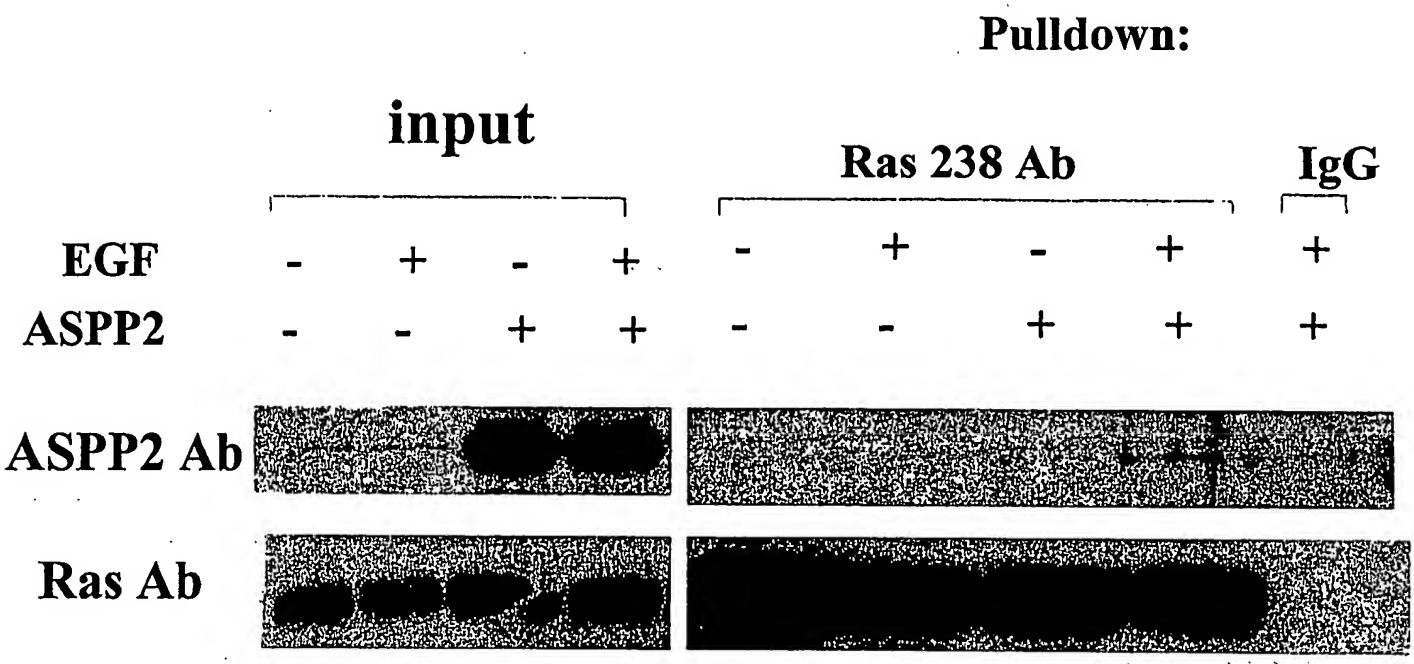


Figure 13

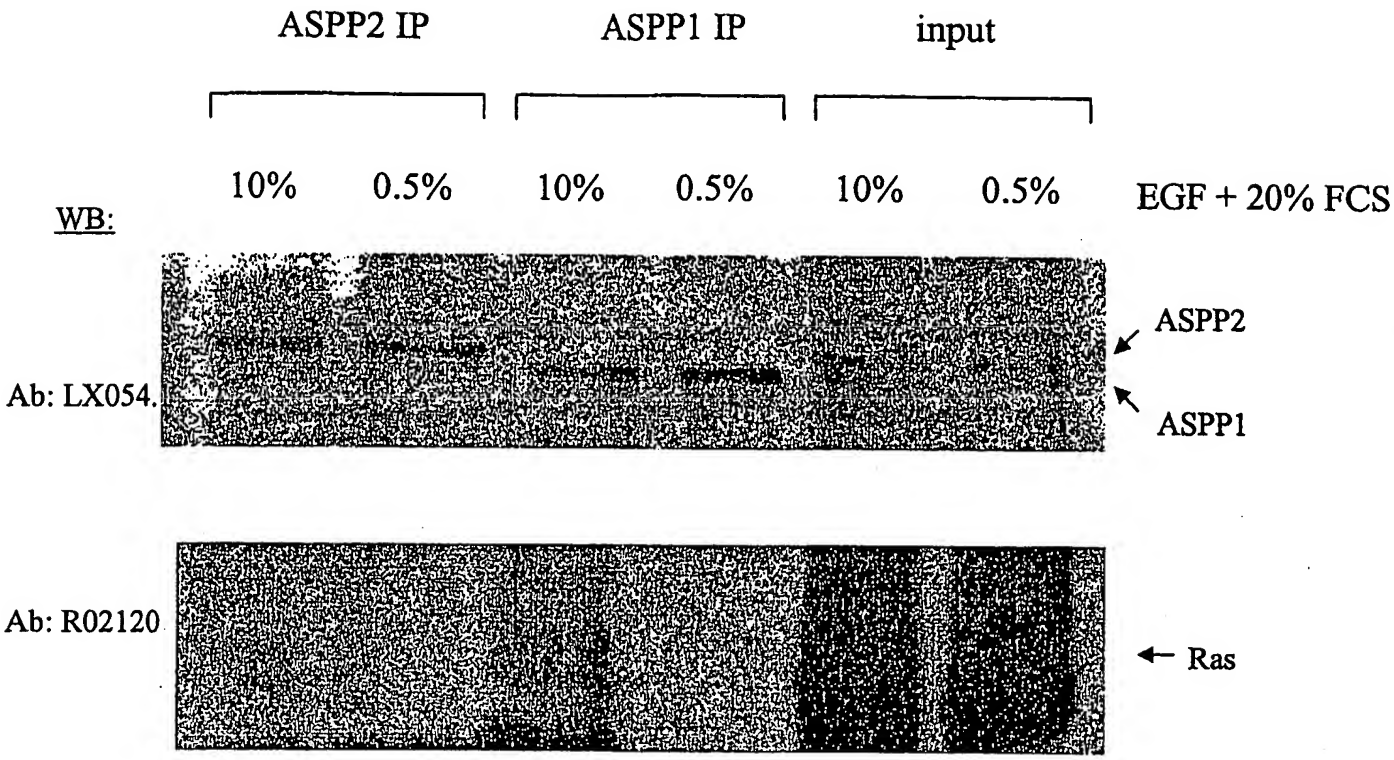

ASPP2 IP
ASPP1 IP
input
10%
0.5%
10%
0.5%
10%
0.5%
EGF + 20% FCS
WB:
Ab: LX054.
ASPP2
ASPP1
Ab: R02120
Ras

Figure 14A

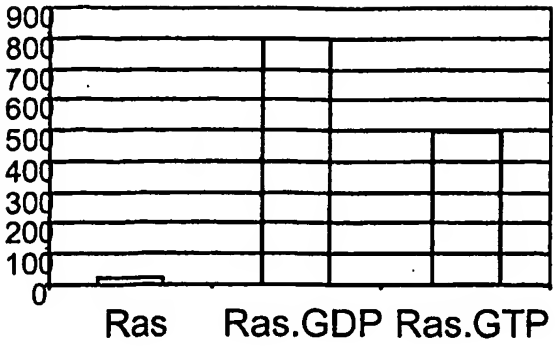


Figure 14B

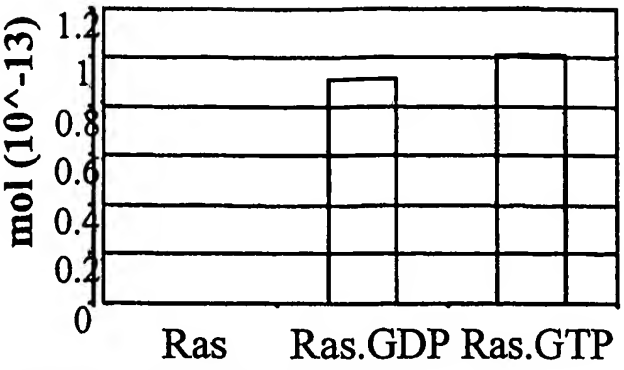
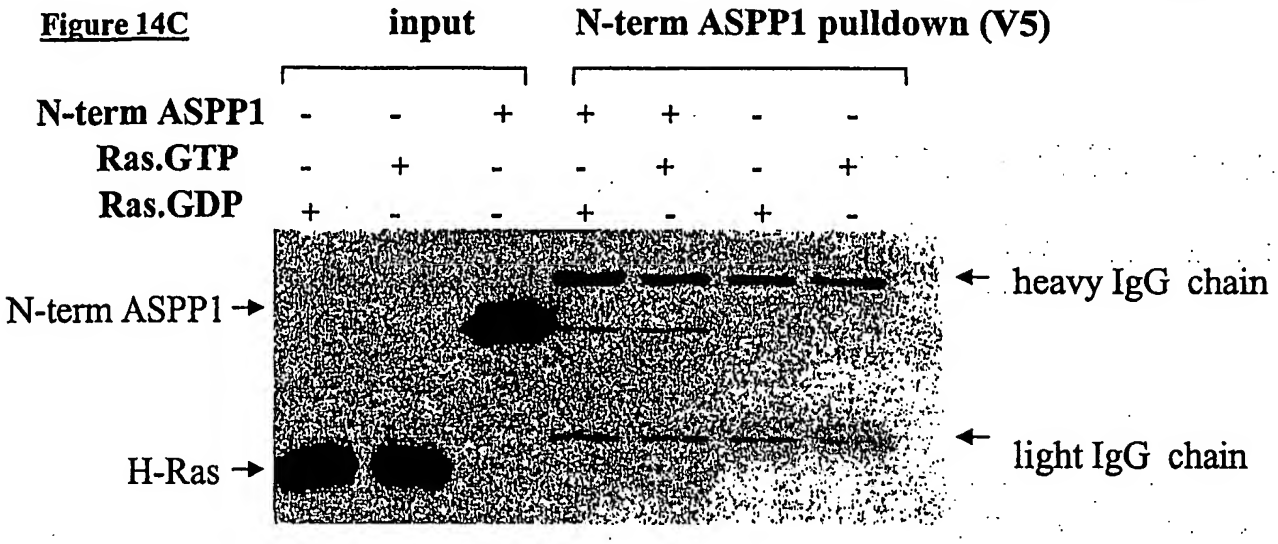


Figure 14C



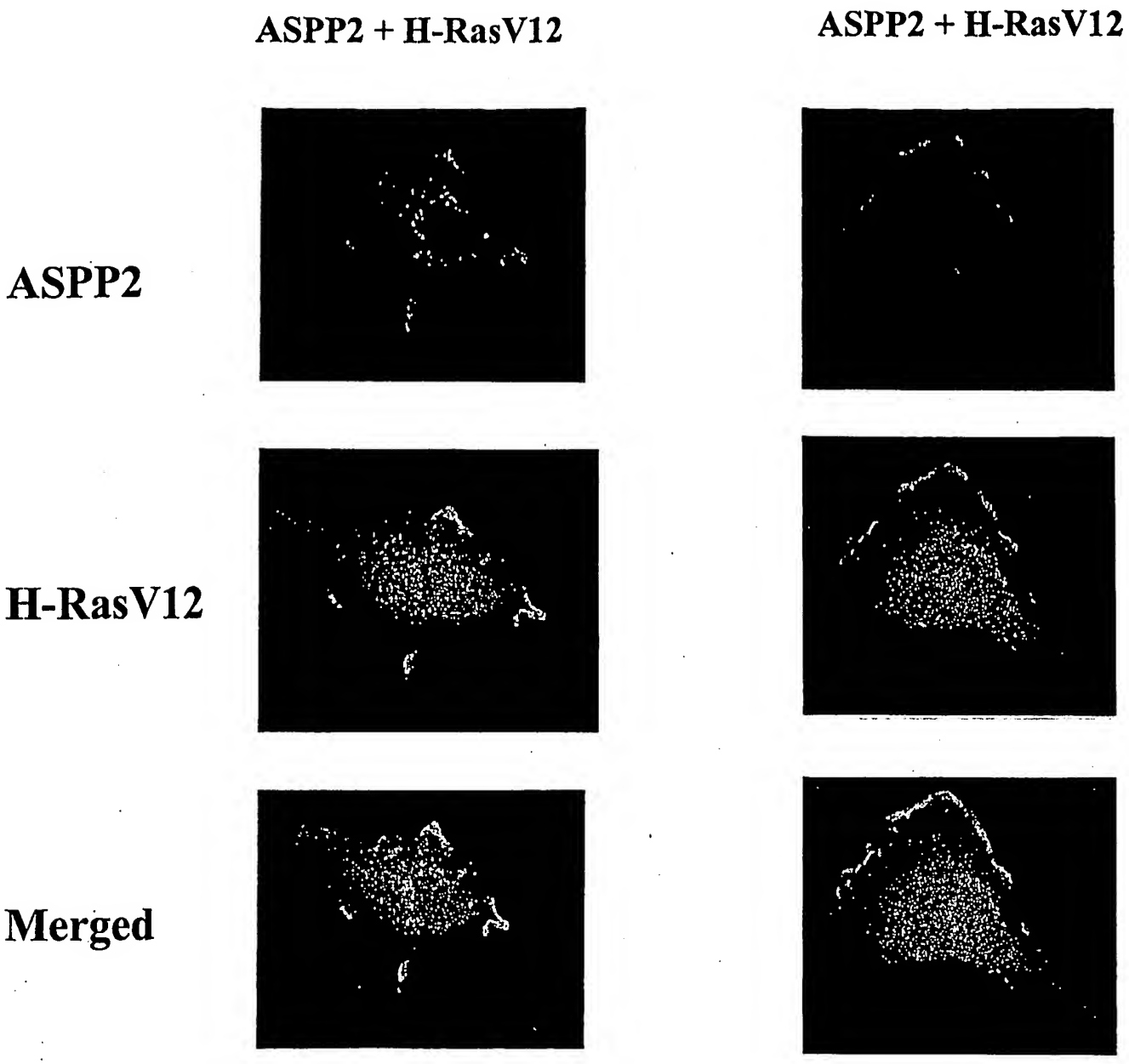


Figure 15

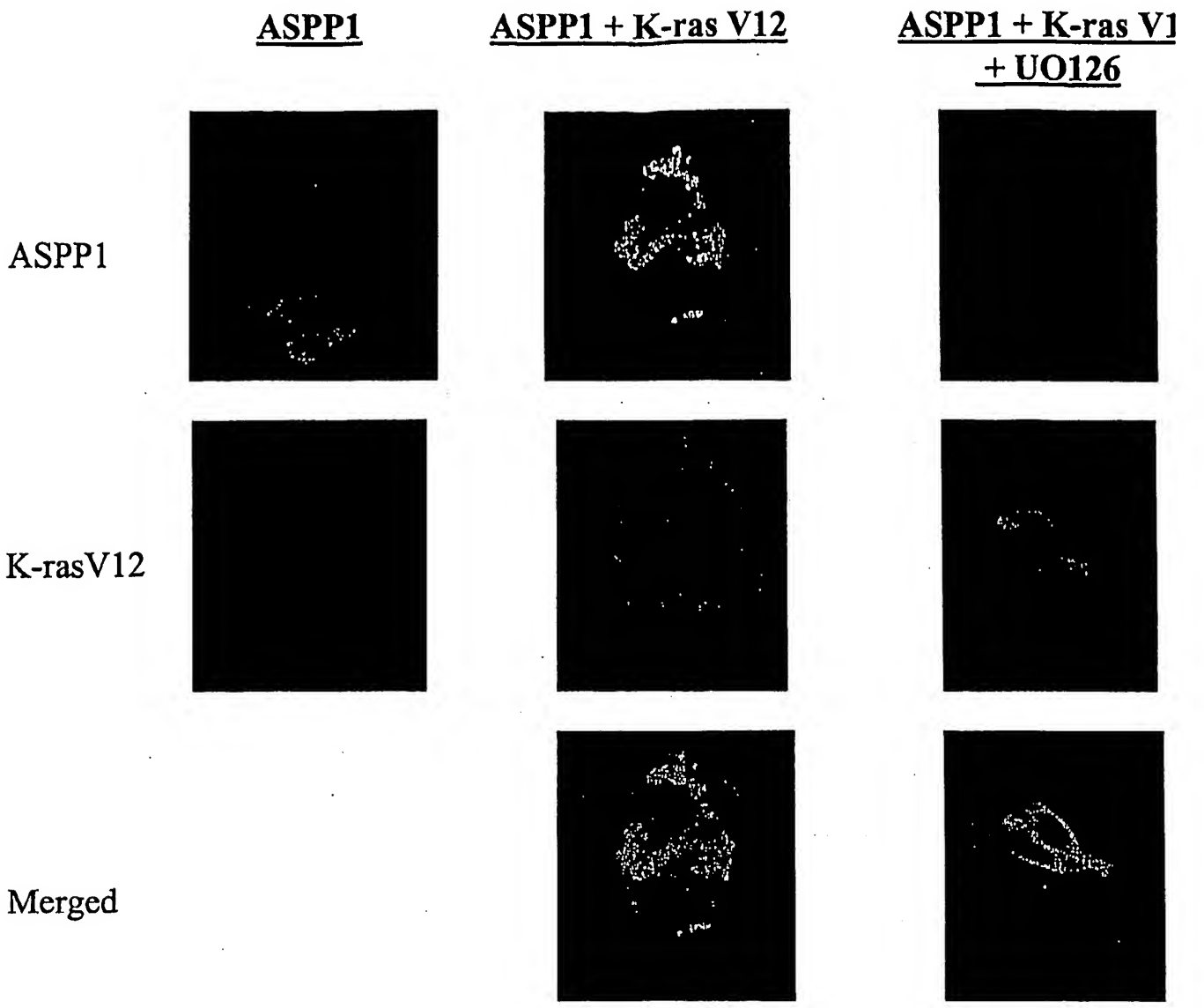

ASPP1
ASPP1 + K-ras V12
ASPP1 + K-ras V1
+ UO126
ASPP1
K-rasV12
Merged

Figure 16

Figure 17a

GAGCCCCGCATCCCGCCGCAGCTGCCGCCTCGCCGCGGCCGGGCCGGAGAGCACGGCGGCGGGAGCGCGGCCTTAGGAGG
CGGCCGGAGCGGTGGGCACAGCTCGGCGCGGAGCGTCCTGTCAGGCGGCGGCCGAGGGCGTCGCGGACTCTCCCCGCGAT
GATGCCGATGATATTAACTGTTTTCTTGAGCAACAATGAACAGATTTTAACAGAAGTTCCTATAACACCGGAAACAACCT
GTCGAGATGTTGTAGAATTTTGCAAGGAACCTGGAGAAGGCAGCTGCCATTTAGCTGAAGTGTGGAGGGGAAATGAACGT
CCCATACCCTTTGATCATATGATGTACGAACATCTTCAGATATGGGGTCCACGGAGGGAAGAAGTGAAATTTTTCCTTCG
ACACGAGGACTCCCCAACTGAGAACAGTGAACAAGGTGGCCGTCAGACCCAAGAGCAACGAACTCAGAGAAATGTAATAA
ATGTACCTGGAGATAAACGTACTGAATATGGGGTTGGGAATCCACGTGTTGAACTTACCCTCTCAGAGCTCCAAGATATG
GCAGCTAGGCAACAGCAGCAGATTGAAAATCAGCAGCAGATGTTGGTTGCCAAGGAACAGCGTTTACATTTTCTAAAGCA
ACAGGAGCGCCGTCAGCAGCAGTCTATTTCTGAAAATGAAAAGCTTCAGAAATTGAAAGAACGAGTTGAAGCCCAGGAGA
ACAAGCTGAAGAAAATTCGTGCAATGAGAGGACAAGTCGACTACAGCAAAATCATGAACGGCAATCTGTCTGCTGAAATA
GAAAGGTTCAGTGCCATGTTCCAGGAAAAGAAGCAGGAAGTACAGACTGCAATTTTAAGGGTTGATCAGCTTAGTCAGCA
ATTGGAAGATTTAAAGAAAGGAAAACTGAATGGGTTCCAGTCTTACAATGGCAAATTGACGGGACCAGCGGCGGTGGAGT
TAAAAAGACTGTACCAAGAACTACAGATTCGTAACCAACTTAACCAGGAACAAAATTCAAAACTTCAGCAGCAGAAGGAA
CTCTTAAATAAGCGCAACATGGAGGTGGCCATGATGGACAAGCGAATCAGTGAACTGCGTGAACGTCTCTATGGGAAAAA
AATTCAGCTGAACCGTGTGAATGGCACGTCATCACCACAGTCCCCTCTGAGCACATCGGGCAGGGTCGCTGCTGTGGGGC
CTTATATCCAGGTTCCCAGTGCCGGAAGCTTTCCTGTGCTGGGGGACCCTATAAAGCCCCAGTCTCTCAGTATTGCCTCA
AATGCTGCTCATGGAAGATCCAAATCCGCTAATGATGGAAACTGGCCAACATTAAAACAGAATTCTAGCTCTTCCGTGAA
ACCAGTGCAGGTGGCCGGTGCAGACTGGAAGGATCCGAGCGTGGAGGGGTCTGTCAAGCAGGGCACTGTCTCCAGCCAGC
CTGTGCCCTTCTCAGCACTGGGACCCACGGAGAAGCCGGGCATCGAGATTGGTAAAGTGCCACCTCCCATCCCGGGTGTA
GGCAAGCAGCTGCCTCCAAGCTATGGGACATACCCAAGTCCTACACCTCTGGGTCCTGGGTCGACAAGCTCCCTGGAAAG
GAGGAAGGAAGGCAGCTTGCCCAGGCCCAGTGCAGGCCTGCCAAGTCGACAGAGGCCCACCCTGCTGCCCGCCACAGGCA
GCACCCCCCAGCCAGGCTCCTCACAACAGATTCAGCAGAGGATTTCCGTACCGCCAAGTCCCACGTACCCGCCAGCGGGA
CCACCTGCATTTCCAGCTGGGGACAGCAAGCCTGAACTCCCACTGACAGTGGCCATTAGGCCTTTCCTGGCTGATAAAGG
GTCAAGGCCACAGTCTCCCAGGAAAGGACCCCAGACAGTGAATTCAAGTTCCATATACTCCATGTACCTCCAGCAAGCCA
CACCACCTAAGAATTACCAGCCGGCAGCACACAGCGCCTTAAATAAGTCAGTTAAAGCAGTGTATGGTAAGCCCGTTTTA
CCTTCGGGTTCAACCTCTCCATCGCCGCTGCCGTTTCTTCACGGGTCACTGTCCACGGGCACACCACAGCCTCAGCCACC
TTCAGAAAGTACTGAGAAAGAGCCTGAGCAGGATGGCCCCGCCGCCCCCGCAGATGGCAGCACCGTGGAGAGCCTGCCAC
GGCCACTCAGCCCCACCAAGCTCACGCCCATCGTGCATTCGCCACTGCGCTACCAGAGTGATGCAGACCTGGAGGCCCTC
CGCAGGAAGCTGGCCAACGCGCCCCGGCCCCTGAAAAAGCGCAGCTCCATCACAGAGCCCGAGGGCCCCGGCGGGCCCAA
CATCCAGAAGCTGCTGTACCAGCGCTTCAACACCCTGGCCGGTGGCATGGAGGGCACCCCTTTCTACCAGCCCAGCCCCT
CCCAGGACTTCATGGGCACCTTGGCCGATGTGGACAATGGAAACACCAATGCCAATGGAAACCTGGAAGAGCTCCCCCCT
GCCCAGCCCACAGCCCCACTCCCCGCTGAGCCTGCCCCGTCATCAGATGCCAATGATAATGAGTTACCTTCCCCCGAACC
AGAGGAGCTCATCTGTCCCCAAACCACCCACCAAACTGCCGAGCCGGCAGAGGACAATAACAACAACGTGGCCACGGTCC
CCACCACGGAGCAGATCCCGAGTCCTGTGGCTGAGGCCCCATCTCCAGGGGAAGAGCAGGTCCCTCCAGCACCTCTTCCC
CCTGCCAGCCACCCTCCTGCCACCTCCACGAACAAGCGGACCAACTTGAAGAAGCCCAACTCGGAGCGGACGGGGCACGG
GCTGAGAGTCCGGTTTAACCCCCTGGCACTGCTCCTAGACGCGTCTCTGGAAGGAGAGTTCGATCTGGTGCAGAGGATCA
TCTATGAGGTGGAAGATCCCAGCAAGCCCAACGATGAAGGGATCACCCCACTGCACAACGCCGTCTGCGCCGGCCACCAT
CACATCGTGAAGTTCCTGCTGGATTTTGGTGTCAACGTGAATGCTGCTGATAGTGATGGATGGACGCCGCTGCACTGCGC
TGCCTCTTGTAACAGCGTTCACCTCTGCAAACAGCTGGTGGAGAGTGGTGCCGCCATTTTTGCCTCAACCATAAGCGACA
TTGAAACTGCTGCAGACAAGTGTGAGGAGATGGAGGAAGGCTACATCCAGTGCTCCCAGTTTCTATATGGGGTGCAGGAA
AAGCTGGGTGTGATGAACAAAGGTGTGGCGTATGCTCTGTGGGACTACGAGGCCCAGAACAGTGACGAGCTGTCCTTCCA
CGAAGGGGACGCCCTCACCATCCTGAGGCGCAAGGACGAAAGCGAGACTGAGTGGTGGTGGGCTCGCCTTGGAGACCGGG
AGGGCTATGTGCCCAAAAACCTGCTGGGGCTGTATCCACGGATCAAACCCCGACAGCGAACACTCGCCTGAACTTCCTTT
TGGAGCACCGCATGGTCTTGCCAGCTACCAGGAGCCACTTAAGAGATTATTGTGCTGTTTTCCAGGAAAGCTGCAGCTAG
AAAATGGTCTTAATGGTGCTCACTTTAGCAGACAGCGTCCACAATGTGAATCCTACAGTTTCCAGGTGAGGCCCTTTCTC
CAGTTTGCCCATTAACTGGGAGAGGTACTTTCGCCTCCAAGGACTGAATTTTGCCAATTACTATAAATCCAAATAAATAC
CCACTTTCAAAACACCCACCCCTCTTGCCATTAAGAAGTCCCATAACCCCCGGTTGGTTGCCAGTGAAGACAGAAGCTCT
TACTGACTTGGCCCCGAGGCCATCACCCCCTCCAGCAGTGAACACTGTCCGCCGCTGTGAGGCCTGCTCCCCTGCGACCG
CCCTGCCCCCCGTCACCGAATCGGACACTCATCCTTTCTCACACTTCCCACACATGATCCTTCTTCCCTTCATCACCAAA
GGAGCCTCTGTATGGAAACATGTCCAGTGTTGCTGCCCAGTGTGTATGCCTCCCAGTACCCACTCTGCTCGGCCGCCTTG
GGGGTTCCGCTTCCTGTTCCAGTTCACCTAAAGGCTGATTGTGCAGGCCCAGCACTGTGGCTGGACTGCCGCGCCACGGG
CACCAGGACCCCTAAGACCAAGTGACAACTGGGAGAGCCTCAGCATATACTCTTCTCCTCCGATCTCACAGCCTGTCATG
CTGCTCAGTGTGGTTCTCACCCCTGCAAGCTCAAATTCAGTTCCCTGAATGGAGTCAGGTGCTGGAGGCCGTGGCAGCGG
AGGGTGGTTGGGGTTGGGGCTGGGGGTGGACTGGTGTGAGGGCAGACCAGGGCCAGGTAGACGGGGCTGTTTGGTGCCTG
AAGGATGGCAGACGCCTGGTGTCAGGAGGGGCCGCCACCAAGGAGCAGCAGCTGGGGCAGAGGAGCTGGGGTCAGGGGCC
ACCCCTCTCTGCCGATCTCCCTGCCTGGGCTGGCTGTGAGGCCACCTTTGTCCCAGGCCCAGCCTCAAGGCAAGGAGGGC
GCTTCACTGAGGTGTGAATTGTACGTACAGGCTTTTTATATACCAAAAGTATTTTTTGACTAGACCATTCAAAGCTACCC
GAACTATGTTGGAAATTTTTTTTTTTCTCATTAAAATACAGGCCCTTAGGCTCTATTTTTCATGTATGAGTCGTGTGTAA
TTTATGTAAAAATGTGTGTACAGACTCACTGATGCAGCACTGTAGCCCATCACCTTGGAGCACTGACTGTACATAGTGTG
GTGAAGAAAAGTGAACGCCCTTGTAGAGCAGCCCGACCACAGGAGCATGGCCGCTGCCAGCCCAGACGCTGCTGACGCTG
TGTAAATGTGCACAATAAACCCGTCTCACCCCGG

Figure 17b

GTCACGAGCGTCGAAGAGACAAAGCCGCGTCAGGGGGCCCGGCCGGGGCGGGGGAGCCCGGGGCTTGTTGGTGCCCCAGC
CCGCGCGGAGGGCCCTTCGGACCCGCGCGCCGCCGCTGCCGCCGCCGCCGCCTCGCAACAGGTCCGGGCGGCCTCGCTCT
CCGCTCCCCTCCCCCGCATCCGCGACCCTCCGGGGCACCTCAGCTCGGCCGGGGCCGCAGTCTGGCCACCCGCTTCCATG
CGGTTCGGGTCCAAGATGATGCCGATGTTTCTTACCGTGTATCTCAGTAACAATGAGCAGCACTTCACAGAAGTTCCAGT
TACTCCAGAAACAATATGCAGAGACGTGGTGGATCTGTGCAAAGAACCCGGCGAGAGTGATTGCCATTTGGCTGAAGTGT
GGTGTGGCTCTGAACGTCCAGTTGCGGATAATGAGCGAATGTTTGATGTTCTTCAACGATTTGGAAGTCAGAGGAACGAA
GTTCGCTTCTTCCTTCGTCATGAACGCCCCCCTGGCAGGGACATTGTGAGTGGACCAAGATCTCAGGATCCAAGTTTAAA
AAGAAATGGTGTAAAAGTTCCTGGTGAATATCGAAGAAAGGAGAACGGTGTTAATAGTCCTAGGATGGATCTGACTCTTG
CTGAACTTCAGGAAATGGCATCTCGCCAGCAGCAACAGATTGAAGCCCAGCAACAATTGCTGGCAACTAAGGAACAGCGC
TTAAAGTTTTTGAAACAACAAGATCAGCGACAACAGCAACAAGTTGCTGAGCAGGAGAAACTTAAAAGGCTAAAAGAAAT
AGCTGAGAATCAGGAAGCTAAGCTAAAAAAAGTGAGAGCACTTAAAGGCCACGTGGAACAGAAGAGACTAAGCAATGGGA
AACTTGTGGAGGAAATTGAACAGATGAATAATTTGTTCCAGCAAAAACAGAGGGAGCTCGTCCTGGCTGTGTCAAAAGTA
GAAGAACTGACCAGGCAGCTAGAGATGCTCAAGAACGGCAGGATCGACAGCCACCATGACAATCAGTCTGCAGTGGCTGA
GCTTGATCGCCTCTATAAGGAGCTGCAGCTAAGAAACAAATTGAATCAAGAGCAGAATGCCAAGCTACAACAACAGAGGG
AGTGTTTGAATAAGCGTAATTCAGAAGTGGCAGTCATGGATAAGCGTGTTAATGAGCTGAGGGACCGGCTGTGGAAGAAG
AAGGCAGCTCTACAGCAAAAAGAAAATCTACCAGTTTCATCTGATGGAAATCTTCCCCAGCAAGCCGCGTCAGCCCCAAG
CCGTGTGGCTGCAGTAGGTCCCTATATCCAGTCGTCTACTATGCCTCGGATGCCCTCAAGGCCTGAATTGCTGGTGAAGC
CAGCCCTGCCGGATGGTTCCTTGGTCATTCAGGCTTCAGAGGGGCCGATGAAAATACAGACACTGCCCAACATGAGATCT
GGGGCTGCTTCACAAACTAAAGGCTCTAAAATCCATCCAGTTGGCCCTGATTGGAGTCCTTCAAATGCAGATCTTTTCCC
AAGCCAAGGCTCTGCTTCTGTACCTCAAAGCACTGGGAATGCTCTGGATCAAGTTGATGATGGAGAGGTTCCGCTGAGGG
AGAAAGAGAAGAAAGTGCGTCCGTTCTCAATGTTTGATGCAGTAGACCAGTCCAATGCCCCACCTTCCTTTGGTACTCTG
AGGAAGAACCAGAGCAGTGAAGATATCTTGCGGGATGCTCAGGTTGCAAATAAAAATGTGGCTAAAGTACCACCTCCTGT
TCCTACAAAACCAAAACAGATTAATTTGCCTTATTTTGGACAAACTAATCAGCCACCTTCAGACATTAAGCCAGACGGAA
GTTCTCAGCAGTTGTCAACAGTTGTTCCGTCCATGGGAACTAAACCAAAACCAGCAGGGCAGCAGCCGAGAGTGCTGCTA
TCTCCCAGCATACCTTCGGTTGGCCAAGACCAGACCCTTTCTCCAGGTTCTAAGCAAGAAAGTCCACCTGCTGCTGCCGT
CCGGCCCTTTACTCCCCAGCCTTCCAAAGACACCTTACTTCCACCCTTCAGAAAACCCCAGACCGTGGCAGCAAGTTCAA
TATATTCCATGTATACGCAACAGCAGGCGCCAGGAAAAAACTTCCAGCAGGCTGTGCAGAGCGCGTTGACCAAGACTCAT
ACCAGAGGGCCACACTTTTCAAGTGTATATGGTAAGCCTGTAATTGCTGCTGCCCAGAATCAACAGCAGCACCCAGAGAA
CATTTATTCCAATAGCCAGGGCAAGCCTGGCAGTCCAGAACCTGAAACAGAGCCTGTTTCTTCAGTTCAGGAGAACCATG
AAAACGAAAGAATTCCTCGGCCACTCAGCCCAACTAAATTACTGCCTTTCTTATCTAATCCTTACCGAAACCAGAGTGAT
GCTGACCTAGAAGCCTTACGAAAGAAACTGTCTAACGCACCAAGGCCTCTAAAGAAACGTAGTTCTATTACAGAGCCAGA
GGGTCCTAATGGGCCAAATATTCAGAAGCTTTTATATCAGAGGACCACCATAGCGGCCATGGAGACCATCTCTGTCCCAT
CATACCCATCCAAGTCAGCTTCTGTGACTGCCAGCTCAGAAAGCCCAGTAGAAATCCAGAATCCATATTTACATGTGGAG
CCCGAAAAGGAGGTGGTCTCTCTGGTTCCTGAATCATTGTCCCCAGAGGATGTGGGGAATGCCAGTACAGAGAACAGTGA
CATGCCAGCTCCTTCTCCAGGCCTTGATTATGAGCCTGAGGGAGTCCCAGACAACAGCCCAAATCTCCAGAATAACCCAG
AAGAACCAAATCCAGAGGCTCCACATGTGCTTGATGTGTACCTGGAGGAGTACCCTCCATACCCACCCCCACCATACCCA
TCTGGGGAGCCTGAAGGGCCCGGAGAAGACTCGGTGAGCATGCGCCCGCCTGAAATCACCGGGCAGGTCTCTCTGCCTCC
TGGTAAAAGGACAAACTTGCGTAAAACTGGCTCAGAGCGTATCGCTCATGGAATGAGGGTGAAATTCAACCCCCTTGCTT
TACTGCTAGATTCGTCTTTGGAGGGAGAATTTGACCTTGTACAGAGAATTATTTATGAGGTTGATGACCCAAGCCTCCCC
AATGATGAAGGCATCACGGCTCTTCACAATGCTGTGTGTGCAGGCCACACAGAAATCGTTAAGTTCCTGGTACAGTTTGG
TGTAAATGTAAATGCTGCTGATAGTGATGGATGGACTCCATTACATTGTGCTGCCTCATGTAACAACGTCCAAGTGTGTA
AGTTTTTGGTGGAGTCAGGAGCCGCTGTGTTTGCCATGACCTACAGTGACATGCAGACTGCTGCAGATAAGTGCGAGGAA
ATGGAGGAAGGCTACACTCAGTGCTCCCAATTTCTTTATGGAGTTCAGGAGAAGATGGGCATAATGAATAAAGGAGTCAT
TTATGCGCTTTGGGATTATGAACCTCAGAATGATGATGAGCTGCCCATGAAAGAAGGAGACTGCATGACAATCATCCACA
GGGAAGACGAAGATGAAATCGAATGGTGGTGGGCGCGCCTTAATGATAAGGAGGGATATGTTCCACGTAACTTGCTGGGA
CTGTACCCAAGAATTAAACCAAGACAAAGGAGCTTGGCCTGAAACTTCCACACAGAATTTTAGTCAATGAAGAATTAATC
TCTGTTAAGAAGAAGTAATACGATTATTTTTGGCAAAAATTTCACAAGACTTATTTTAATGACAATGTAGCTTGAAAGCG
ATGAAGAATGTCTCTAGAAGAGAATGAAGGATTGAAGAATTCACCATTAGAGGACATTTAGCGTGATGAAATAAAGCATC
TACGTCAGCAGGCCATACTGTGTTGGGGCAAAGGTGTCCCGTGTAGCACTCAGATAAGTATACAGCGACAATCCTGTTTT
CTACAAGAATCCTGTCTAGTAAATAGGATCATTTATTGGGCAGTTGGGAAATCAGCTCTCTGTCCTGTTGAGTGTTTTCA
GCAGCTGCTCCTAAACCAGTCCTCCTGCCAGAAAGGACCAGTGCCGTCACATCGCTGTCTCTGATTGTCCCCGGCACCAG
CAGGCCTTGGGGCTCACTGAAGGCTCGAAGGCACTGCACACCTTGTATATTGTCAGTGAAGAACGTTAGTTGGTTGTCAG
TGAACAATAACTTTATTATATGAGTTTTTGTAGCATCTTAAGAATTATACATATGTTTGAAATATTGAAACTAAGCTACA
GTACCAGTAATTAGATGTAGAATCTTGTTTGTAGGCTGAATTTTAATCTGTATTTATTGTCTTTTGTATCTCAGAAATTA
GAAACTTGCTACAGACTTACCCGTAATATTTGTCAAGATCATAGCTGACTTTAAAAACAGTTGTAATAAACTTTTTGATG
CT

Figure 17c

MMPMILTVPLSNNEQILTEVPITPETTCRDVVEFCKEPGEGSCHLAEVWRGNERPIPFDHMMYEHLQIWGPRREEVKFFL
RHEDSPTENSEQGGRQTQEQRTQRNVINVPGDKRTEYGVGNPRVELTLSELQDMAARQQQQIENQQQMLVAKEQRLHFLK
QQERRQQQSISSNEKLQKLKERVEAQENKLKKIRAMRGQVDYSKIMNGNLSAEIERFSAMFQEKKQEVQTAILRVDQLSQ
QLEDLKKGKLNGFQSYNGKLTGPAAVELKRLYQELQIRNQLNQEQNSKLQQQKELLNKRNMEVAMMDKRISELRERLYGK
KIQLNRVNGTSSPQSPLSTSGRVAAVGPYIQVPSAGSFPVLGDPIKPQSLSIASNAAHGRSKSANDGNWPTLKQNSSSSV
KPVQVAGADWKDPSVEGSVKQGTVSSQPVPFSALGPTEKPGIEIGKVPPPIPGVGKQLPPSYGTYPSPTPLGPGSTSSLE
RRKEGSLPRPSAGLPSRQRPTLLPATGSTPQPGSSQQIQQRISVPPSPTYPPAGPPAFPAGDSKPELPLTVAIRPFLADK
GSRPQSPRKGPQTVNSSSIYSMYLQQATPPKNYQPAAHSALNKSVKAVYGKPVLPSGSTSPSPLPFLHGSLSTGTPQPQP
PSESTEKEPEQDGPAAPADGSTVESLPRPLSPTKLTPIVHSPLRYQSDADLEALRRKLANAPRPLKKRSSITEPEGPGGP
NIQKLLYQRFNTLAGGMEGTPFYQPSPSQDFMGTLADVDNGNTNANGNLEELPPAQPTAPLPAEPAPSSDANDNELPSPE
PEELICPQTTHQTAEPAEDNNNNVATVPTTEQIPSPVAEAPSPGEEQVPPAPLPPASHPPATSTNKRTNLKKPNSERTGH
GLRVRFNPLALLLDASLEGEFDLVQRIIYEVEDPSKPNDEGITPLHNAVCAGHHHIVKFLLDFGVNVNAADSDGWTPLHC
AASCNSVHLCKQLVESGAAIFASTISDIETAADKCEEMEEGYIQCSQFLYGVQEKLGVMNKGVAYALWDYEAQNSDELSF
HEGDALTILRRKDESETEWWWARLGDREGYVPKNLLGLYPRIKPRQRTLA

Figure 17d

MMPMFLTVYLSNNEQHFTEVPVTPETICRDVVDLCKEPGESDCHLAEVWCGSERPVADNERMFDVLQRFGSQRNEVRFFL
RHERPPGRDIVSGPRSQDPSLKRNGVKVPGEYRRKENGVNSPRMDLTLAELQEMASRQQQQIEAQQQLLATKEQRLKFLK
QQDQRQQQQVAEQEKLKRLKEIAENQEAKLKKVRALKGHVEQKRLSNGKLVEEIEQMNNLFQQKQRELVLAVSKVEELTR
QLEMLKNGRIDSHHDNQSAVAELDRLYKELQLRNKLNQEQNAKLQQQRECLNKRNSEVAVMDKRVNELRDRLWKKKAALQ
QKENLPVSSDGNLPQQAASAPSRVAAVGPYIQSSTMPRMPSRPELLVKPALPDGSLVIQASEGPMKIQTLPNMRSGAASQ
TKGSKIHPVGPDWSPSNADLFPSQGSASVPQSTGNALDQVDDGEVPLREKEKKVRPFSMFDAVDQSNAPPSFGTLRKNQS
SEDILRDAQVANKNVAKVPPPVPTKPKQINLPYFGQTNQPPSDIKPDGSSQQLSTVVPSMGTKPKPAGQQPRVLLSPSIP
SVGQDQTLSPGSKQESPPAAAVRPPTPQPSKDTLLPPFRKPQTVAASSIYSMYTQQQAPGKNFQQAVQSALTKTHTRGPH
PSSVYGKPVIAAAQNQQQHPENIYSNSQGKPGSPEPETEPVSSVQENHENERIPRPLSPTKLLPFLSNPYRNQSDADLEA
LRKKLSNAPRPLKKRSSITEPEGPNGPNIQKLLYQRTTIAAMETISVPSYPSKSASVTASSESPVEIQNPYLHVEPEKEV
VSLVPESLSPEDVGNASTENSDMPAPSPGLDYEPEGVPDNSPNLQNNPEEPNPEAPHVLDVYLEEYPPYPPPPYPSGEPE
GPGEDSVSMRPPEITGQVSLPPGKRTNLRKTGSERIAHGMRVKFNPLALLLDSSLEGEFDLVQRIIYEVDDPSLPNDEGI
TALHNAVCAGHTEIVKFLVQFGVNVNAADSDGWTPLHCAASCNNVQVCKFLVESGAAVFAMTYSDMQTAADKCEEMEEGY
TQCSQFLYGVQEKMGIMNKGVIYALWDYEPQNDDELPMKEGDCMTIIHREDEDEIEWWWARLNDKEGYVPRNLLGLYPRI
KPRQRSLA

Figure 18a

ATGACGGAATATAAGCTGGTGGTGGTGGGCGCCGGCGGTGTGGGCAAGA
GTGCGCTGACCATCCAGCTGATCCAGAACCATTTTGTGGACGAATACGAC
CCCACTATAGAGGATTCCTACCGGAAGCAGGTGGTCATTGATGGGGAGAC
GTGCCTGTTGGACATCCTGGATACCGCCGGCCAGGAGGAGTACAGCGCCA
TGCGGGACCAGTACATGCGCACCGGGGAGGGCTTCCTGTGTGTGTTTGCC
ATCAACAACACCAAGTCTTTTGAGGACATCCACCAGTACAGGGAGCAGAT
CAAACGGGTGAAGGACTCGGATGACGTGCCCATGGTGCTGGTGGGGAAC
AAGTGTGACCTGGCTGCACGCACTGTGGAATCTCGGCAGGCTCAGGACCT
CGCCCGAAGCTACGGCATCCCCTACATCGAGACCTCGGCCAAGACCCGGC
AGGGAGTGGAGGATGCCTTCTACACGTTGGTGCGTGAGATCCGGCAGCAC
AAGCTGCGGAAGCTGAACCCTCCTGATGAGAGTGGCCCCGGCTGCATGAG
CTGCAAGTGTGTGCTCTCCTGA

Figure 18b

MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETCL
LDILDTAGQEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHQYREQIKRVK
DSDDVPMVLVGNKCDLAARTVESRQAQDLARSYGIPYIETSAKTRQGVEDAF
YTLVREIRQHKLRKLNPPDESGPGCMSCKCVLS

Figure 18c

ATGACGGAATATAAGCTGGTGGTGGTGGGCGCCGTCGGTGTGGGCAAGA
GTGCGCTGACCATCCAGCTGATCCAGAACCATTTTGTGGACGAATACGAC
CCCACTATAGAGGATTCCTACCGGAAGCAGGTGGTCATTGATGGGGAGAC
GTGCCTGTTGGACATCCTGGATACCGCCGGCCAGGAGGAGTACAGCGCCA
TGCGGGACCAGTACATGCGCACCGGGGAGGGCTTCCTGTGTGTGTTTGCC
ATCAACAACACCAAGTCTTTTGAGGACATCCACCAGTACAGGGAGCAGAT
CAAACGGGTGAAGGACTCGGATGACGTGCCCATGGTGCTGGTGGGGAAC
AAGTGTGACCTGGCTGCACGCACTGTGGAATCTCGGCAGGCTCAGGACCT
CGCCCGAAGCTACGGCATCCCCTACATCGAGACCTCGGCCAAGACCCGGC
AGGGAGTGGAGGATGCCTTCTACACGTTGGTGCGTGAGATCCGGCAGCAC
AAGCTGCGGAAGCTGAACCCTCCTGATGAGAGTGGCCCCGGCTGCATGAG
CTGCAAGTGTGTGCTCTCCTGA

Figure 18d

MTEYKLVVVGAVGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETCL
LDILDTAGQEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHQYREQIKRVK
DSDDVPMVLVGNKCDLAARTVESRQAQDLARSYGIPYIETSAKTRQGVEDAF
YTLVREIRQHKLRKLNPPDESGPGCMSCKCVLS-

Figure 18e

ATGACTGAATATAAACTTGTGGTAGTTGGAGCTGGTGGCGTAGGCAAGAG
TGCCTTGACGATACAGCTAATTCAGAATCATTTTGTGGACGAATATGATCC
AACAATAGAGGATTCCTACAGGAAGCAAGTAGTAATTGATGGAGAAACC
TGTCTCTTGGATATTCTCGACACAGCAGGTCAAGAGGAGTACAGTGCAAT
GAGGGACCAGTACATGAGGACTGGGGAGGGCTTTCTTTGTGTATTTGCCA
TAAATAATACTAAATCATTTGAAGATATTCACCATTATAGAGAACAAATT
AAAAGAGTTAAGGACTCTGAAGATGTACCTATGGTCCTAGTAGGAAATAA
ATGTGATTTGCCTTCTAGAACAGTAGACACAAAACAGGCTCAGGACTTAG
CAAGAAGTTATGGAATTCCTTTTATTGAAACATCAGCAAAGACAAGACAG
GGTGTTGATGATGCCTTCTATACATTAGTTCGAGAAATTCGAAAACATAA
AGAAAAGATGAGCAAAGATGGTAAAAAGAAGAAAAAGAAGTCAAAGAC
AAAGTGTGTAATTATGTAA

Figure 18f

MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETCL
LDILDTAGQEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHHYREQIKRVK
DSEDVPMVLVGNKCDLPSRTVDTKQAQDLARSYGIPFIETSAKTRQGVDDAF
YTLVREIRKHKEKMSKDGKKKKKKSKTKCVIM-

Figure 18g

ATGACTGAATATAAACTTGTGGTAGTTGGAGCTGTCGGCGTAGGCAAGAG
TGCCTTGACGATACAGCTAATTCAGAATCATTTTGTGGACGAATATGATCC
AACAATAGAGGATTCCTACAGGAAGCAAGTAGTAATTGATGGAGAAACC
TGTCTCTTGGATATTCTCGACACAGCAGGTCAAGAGGAGTACAGTGCAAT
GAGGGACCAGTACATGAGGACTGGGGAGGGCTTTCTTTGTGTATTTGCCA
TAAATAATACTAAATCATTTGAAGATATTCACCATTATAGAGAACAAATT
AAAAGAGTTAAGGACTCTGAAGATGTACCTATGGTCCTAGTAGGAAATAA
ATGTGATTTGCCTTCTAGAACAGTAGACACAAAACAGGCTCAGGACTTAG
CAAGAAGTTATGGAATTCCTTTTATTGAAACATCAGCAAAGACAAGACAG
GGTGTTGATGATGCCTTCTATACATTAGTTCGAGAAATTCGAAAACATAA
AGAAAAGATGAGCAAAGATGGTAAAAAGAAGAAAAAGAAGTCAAAGAC
AAAGTGTGTAATTATGTAA

Figure 18h

MTEYKLVVVGAVGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETCL
LDILDTAGQEEYSAMRDQYMRTGEGFLCVFAINNTKSFEDIHHYREQIKRVK
DSEDVPMVLVGNKCDLPSRTVDTKQAQDLARSYGIPFIETSAKTRQGVDDAF
YTLVREIRKHKEKMSKDGKKKKKKSKTKCVIM-

Figure 19a

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atggcggcgg cggcggcggc gggcgcgggc ccggagatgg tccgcgggca ggtgttcgac
gtggggccgc gctacaccaa cctctcgtac atcggcgagg gcgcctacgg catggtgtgc
tctgcttatg ataatgtcaa caaagttcga gtagctatca agaaaatcag ccccttgag
caccagacct actgccagag aaccctgagg gagataaaaa tcttactgcg cttcagacat
gagaacatca ttggaatcaa tgacattatt cgagcaccaa ccatcgagca aatgaaagat
gtatatatag tacaggacct catggaaaca gatctttaca agctcttgaa gacacaacac
ctcagcaatg accatatctg ctattttctc taccagatcc tcagagggtt aaaatatatc
cattcagcta acgttctgca ccgtgacctc aagccttcca acctgctgct caacaccacc
tgtgatctca agatctgtga ctttggcctg gcccgtgttg cagatccaga ccatgatcac
acagggttcc tgacagaata tgtggccaca cgttggtaca gggctccaga aattatgttg
aattccaagg gctacaccaa gtccattgat atttggtctg taggctgcat tctggcagaa
atgctttcta acaggcccat ctttccaggg aagcattatc ttgaccagct gaaacacatt
ttgggtattc ttggatcccc atcacaagaa gacctgaatt gtataataaa tttaaaagct
aggaactatt tgctttctct tccacacaaa aataaggtgc catggaacag gctgttccca
aatgctgact ccaaagctct ggacttattg gacaaaatgt tgacattcaa cccacacaag
aggattgaag tagaacaggc tctggcccac ccatatctgg agcagtatta cgacccgagt
gacgagccca tcgccgaagc accattcaag ttcgacatgg aattggatga cttgcctaag
gaaaagctca aagaactaat ttttgaagag actgctagat tccagccagg atacagatct
taa
```

Figure 19b

MAAAAAAGAGPEMVRGQVFDVGPRYTNLSYIGEGAYGMVCSAYDNVNKVRV
AIKKISPFEHQTYCQRTLREIKILLRFRHENIIGINDIIRAPTIEQMKDVYIVQDLME
TDLYKLLKTQHLSNDHICYFLYQILRGLKYIHSANVLHRDLKPSNLLLNTTCDLKI
CDFGLARVADPDHDHTGFLTEYVATRWYRAPEIMLNSKGYTKSIDIWSVGCILA
EMLSNRPIFPGKHYLDQLKHILGILGSPSQEDLNCIINLKARNYLLSLPHKNKVPW
NRLFPNADSKALDLLDKMLTFNPHKRIEVEQALAHPYLEQYYDPSDEPIAEAPFK
FDMELDDLPKEKLKELIFEETARFQPGYRS

Figure 20a

```
   1 tcgggctgag gttcccgggc gggcgggcgc ggagagacgc gggaagcagg ggctgggcgg
  61 gggtcgcggc gccgcagcta gcgcagccag cccgagggcc gccgccgccg ccgcccagcg
 121 cgctccgggg ccgccggccg cagccagcac ccgccgcgcc gcagctccgg gaccggcccc
 181 ggccgccgcc gccgcgatgg gcaacgccgc cgccgccaag aagggcagcg agcaggagag
 241 cgtgaaagaa ttcttagcca aagccaaaga agattttctt aaaaaatggg aaagtcccgc
 301 tcagaacaca gcccacttgg atcagtttga acgaatcaag accctcggca cgggctcctt
 361 cgggcgggtg atgctggtga aacacaagga gaccgggaac cactatgcca tgaagatcct
 421 cgacaaacag aaggtggtga aactgaaaca gatcgaacac accctgaatg aaaagcgcat
 481 cctgcaagct gtcaactttc cgttcctcgt caaactcgag ttctccttca aggacaactc
 541 aaacttatac atggtcatgg agtacgtgcc cggcggggag atgttctcac acctacggcg
 601 gatcggaagg ttcagtgagc cccatgcccg tttctacgcg gcccagatcg tcctgacctt
 661 tgagtatctg cactcgctgg atctcatcta cagggacctg aagccggaga atctgctcat
 721 tgaccagcag ggctacattc aggtgacaga cttcggtttc gccaagcgcg tgaagggccg
 781 cacttggacc ttgtgcggca cccctgagta cctggcccct gagattatcc tgagcaaagg
 841 ctacaacaag gccgtggact ggtgggccct gggggttctt atctatgaaa tggccgctgg
 901 ctacccgccc ttcttcgcag accagcccat ccagatctat gagaagatcg tctctgggaa
 961 ggtgcgcttc ccttcccact tcagctctga cttgaaggac ctgctgcgga acctcctgca
1021 ggtagatctc accaagcgct ttgggaacct caagaatggg gtcaacgata tcaagaacca
1081 caagtggttt gccacaactg actggattgc catctaccag aggaaggtgg aagctccctt
1141 cataccaaag tttaaaggcc ctggggatac gagtaacttt gacgactatg aggaagaaga
1201 aatccgggtc tccatcaatg agaagtgtgg caaggagttt tctgagtttt aggggcatgc
1261 ctgtgccccc atgggttttc ttttttcttt tttcttttct ttggtcgggg gggtgggagg
1321 gttggattga acagccagag ggccccagag ttccttgcat ctaatttcac ccccacccca
1381 ccctccaggg ttaggggggag caggaagccc agataatcag agggacagaa acaccagctg
1441 ctccccctca tccccttcac cctcctgccc cctctcccac ttttcccttc ctctttcccc
1501 acagcccccc agcccctcag ccctcccagc ccacttctgc ctgttttaaa cgagtttctc
1561 aactccagtc agaccaggtc ttgctggtgt atccagggac agggtatgga aagaggggct
1621 cacgcttaac tccagccccc acccacaccc ccatcccacc caaccacagg ccccacttgc
1681 taagggcaaa tgaacgaagc gccaaccttc ctttcggagt aatcctgcct gggaaggaga
1741 gatttttagt gacatgttca gtgggttgct tgctagaatt tttttaaaaa aacaacaatt
1801 taaaatctta tttaagttcc accagtgcct ccctccctcc ttcctctact cccacccctc
1861 ccatgtcccc ccattcctca aatccatttt aaagagaagc agactgactt tggaaaggga
1921 ggcgctgggg tttgaacctc cccgctgcta atctcccctg ggcccctccc cggggaatcc
1981 tctctgccaa tcctgcgagg gtctaggccc ctttaggaag cctccgctct ctttttcccc
2041 aacagacctg tcttcaccct tgggctttga aagccagaca aagcagctgc ccctctccct
2101 gccaaagagg agtcatcccc caaaaagaca gagggggagc cccaagccca agtctttcct
2161 cccagcagcg tttcccccca actccttaat tttattctcc gctagatttt aacgtccagc
2221 cttccctcag ctgagtgggg agggcatccc tgcaaaaggg aacagaagag gccaagtccc
2281 cccaagccac ggcccggggt tcaaggctag agctgctggg gaggggctgc ctgttttact
2341 cacccaccag cttccgcctc ccccatcctg ggcgcccctc ctccagctta gctgtcagct
2401 gtccatcacc tctcccccac tttctcattt gtgctttttt ctctcgtaat agaaaagtgg
2461 ggagccgctg gggagccacc ccattcatcc ccgtatttcc ccctctcata acttctcccc
2521 atcccaggag gagttctcag gcctggggtg gggccccggg tgggtgcggg ggcgattcaa
2581 cctgtgtgct gcgaaggacg agacttcctc ttgaacagtg tgctgttgta aacatatttg
2641 aaaactatta ccaataaagt tttgtttaaa aaaaaaaaaa aaaaa
```

Figure 20b

```
MGNAAAAKKGSEQESVKEFLAKAKEDFLKKWESPAQNTAHLDQFERIKTLGTGSFGRVMLVKHKETGNHY
AMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVKLEFSFKDNSNLYMVMEYVPGGEMFSHLRRIGRFS
EPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDQQGYIQVTDFGFAKRVKGRTWTLCGTPEYLAPEI
ILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFPSHFSSDLKDLLRNLLQVDLTK
RFGNLKNGVNDIKNHKWFATTDWIAIYQRKVEAPFIPKFKGPGDTSNFDDYEEEEIRVSINEKCGKEFSE
F
```

Figure 21a

ATGTCCGACAGCGAGAAGCTCAACCTGGACTCGATCATCGGGCGCCTGCT
GGAAGTGCAGGGCTCGCGGCCTGGCAAGAATGTACAGCTGACAGAGAAC
GAGATCCGCGGTCTGTGCCTGAAATCCCGGGAGATTTTTCTGAGCCAGCC
CATTCTTCTGGAGCTGGAGGCACCCCTCAAGATCTGCGGTGACATACACG
GCCAGTACTACGACCTTCTGCGACTATTTGAGTATGGCGGTTTCCCTCCCG
AGAGCAACTACCTCTTTCTGGGGGACTATGTGGACAGGGGCAAGCAGTCC
TTGGAGACCATCTGCCTGCTGCTGGCCTATAAGATCAAGTACCCCGAGAA
CTTCTTCCTGCTCCGTGGGAACCACGAGTGTGCCAGCATCAACCGCATCTA
TGGTTTCTACGATGAGTGCAAGAGACGCTACAACATCAAACTGTGGAAAA
CCTTCACTGACTGCTTCAACTGCCTGCCCATCGCGGCCATAGTGGACGAA
AAGATCTTCTGCTGCCACGGAGGCCTGTCCCCGGACCTGCAGTCTATGGA
GCAGATTCGGCGGATCATGCGGCCCACAGATGTGCCTGACCAGGGCCTGC
TGTGTGACCTGCTGTGGTCTGACCCTGACAAGGACGTGCAGGGCTGGGGC
GAGAACGACCGTGGCGTCTCTTTTACCTTTGGAGCCGAGGTGGTGGCCAA
GTTCCTCCACAAGCACGACTTGGACCTCATCTGCCGAGCACACCAGGTGG
TAGAAGACGGCTACGAGTTCTTTGCCAAGCGGCAGCTGGTGACACTTTTC
TCAGCTCCCAACTACTGTGGCGAGTTTGACAATGCTGGCGCCATGATGAG
TGTGGACGAGACCCTCATGTGCTCTTTCCAGATCCTCAAGCCCGCCGACA
AGAACAAGGGGAAGTACGGGCAGTTCAGTGGCCTGAACCCTGGAGGCCG
ACCCATCACCCCACCCCGCAATTCCGCCAAAGCCAAGAAATAG

Figure 21b

MSDSEKLNLDSIIGRLLEVQGSRPGKNVQLTENEIRGLCLKSREIFLSQPILLEL
EAPLKICGDIHGQYYDLLRLFEYGGFPPESNYLFLGDYVDRGKQSLETICLLL
AYKIKYPENFFLLRGNHECASINRIYGFYDECKRRYNIKLWKTFTDCFNCLPIA
AIVDEKIFCCHGGLSPDLQSMEQIRRIMRPTDVPDQGLLCDLLWSDPDKDVQ
GWGENDRGVSFTFGAEVVAKFLHKHDLDLICRAHQVVEDGYEFFAKRQLVT
LFSAPNYCGEFDNAGAMMSVDETLMCSFQILKPADKNKGKYGQFSGLNPGG
RPITPPRNSAKAKK

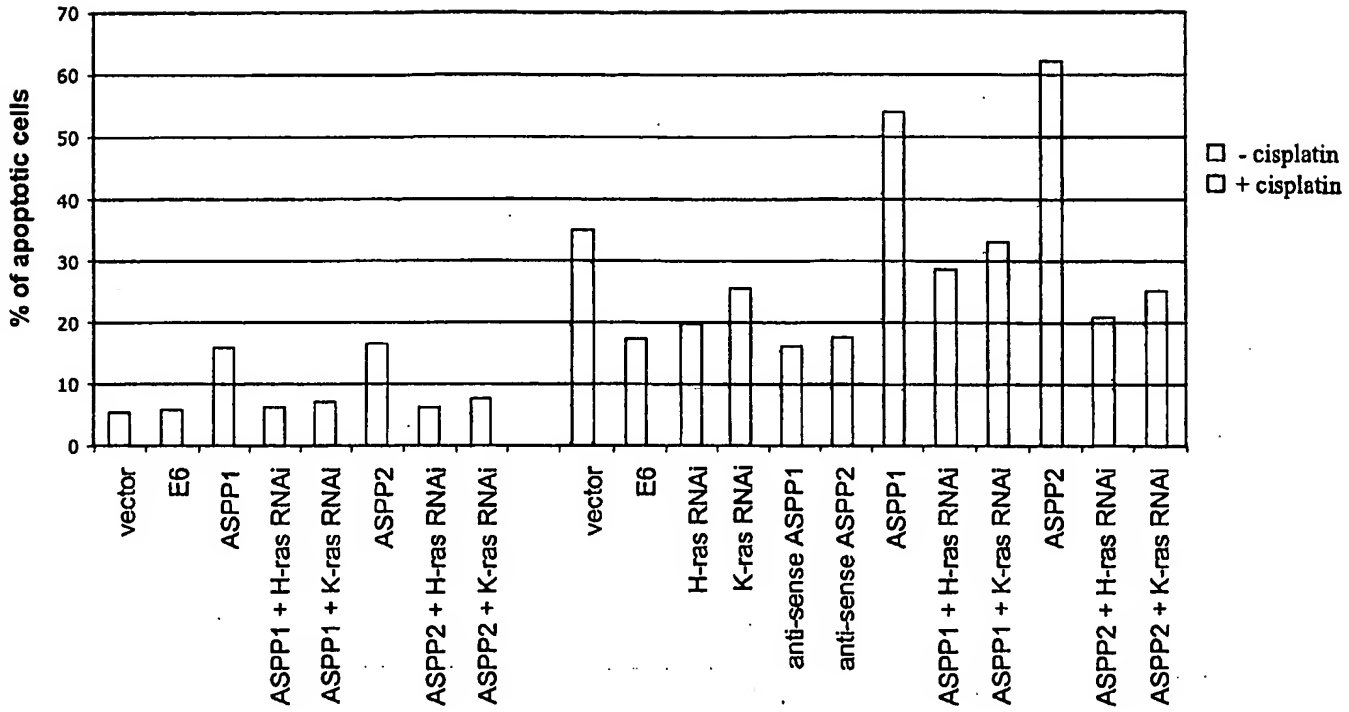
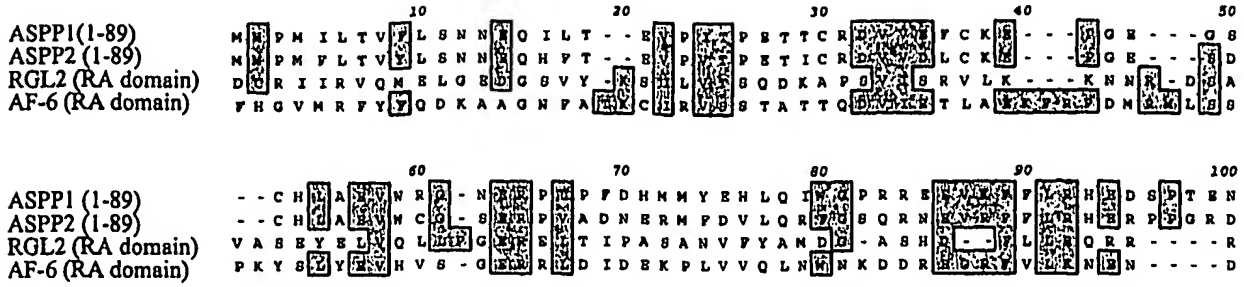
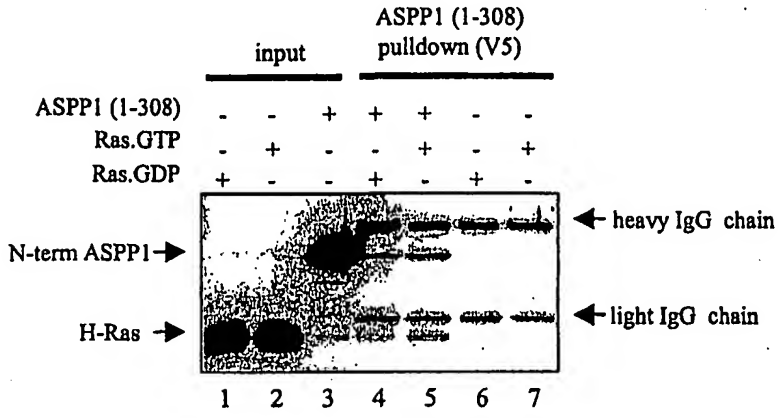

% of apoptotic cells
70
60
50
40
30
20
10
0
vector
E6
ASPP1
ASPP1 + H-ras RNAi
ASPP1 + K-ras RNAi
ASPP2
ASPP2 + H-ras RNAi
ASPP2 + K-ras RNAi
vector
E6
H-ras RNAi
K-ras RNAi
anti-sense ASPP1
anti-sense ASPP2
ASPP1
ASPP1 + H-ras RNAi
ASPP1 + K-ras RNAi
ASPP2
ASPP2 + H-ras RNAi
ASPP2 + K-ras RNAi
- cisplatin
+ cisplatin

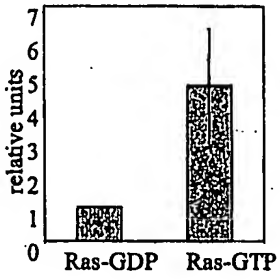
Figure 22

23
A

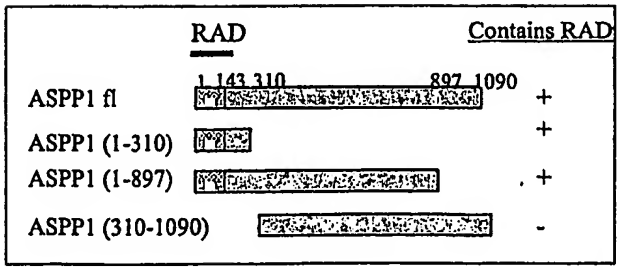


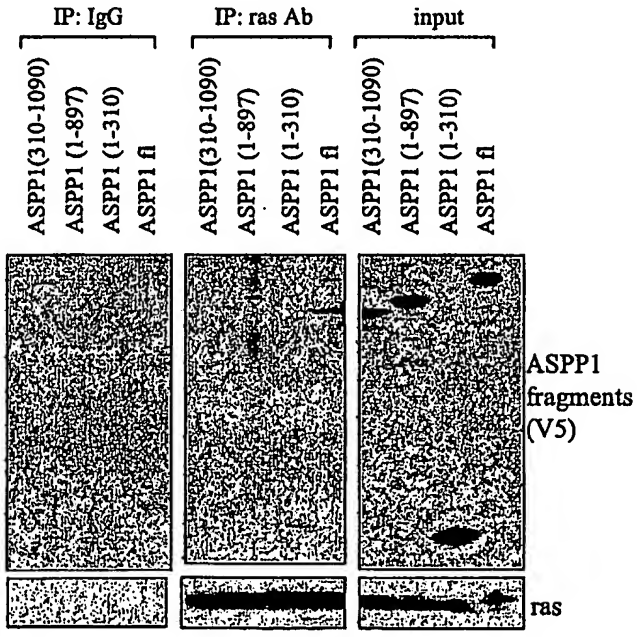
23
B



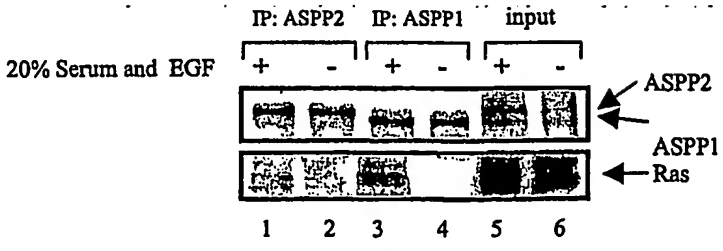


23
C

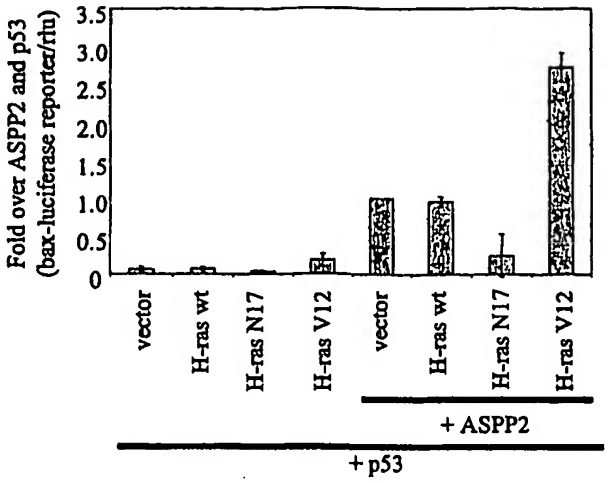




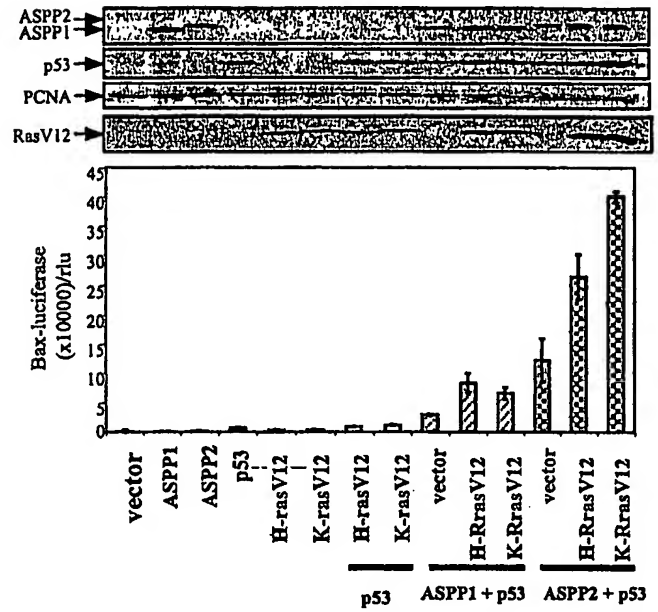
23
D

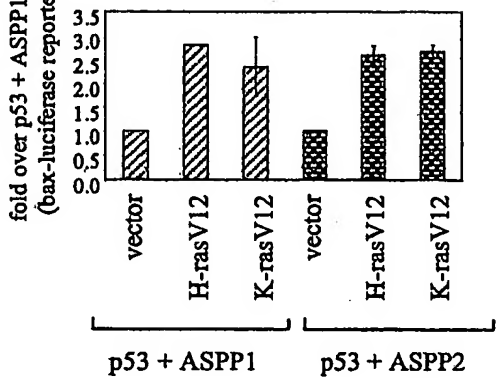


24
A

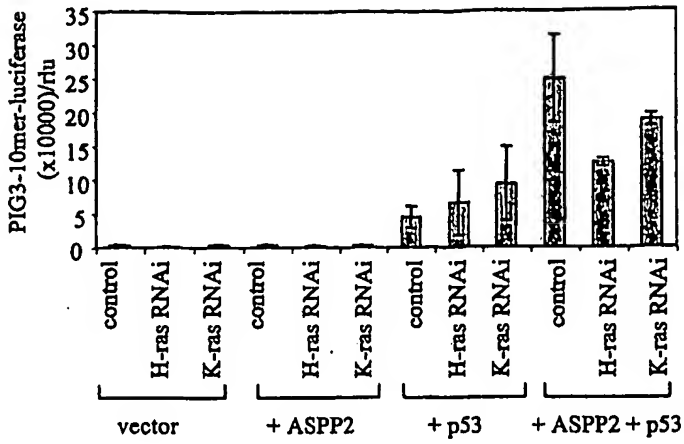

Fold over ASPP2 and p53 (bax-luciferase reporter/rlu)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
vector
H-ras wt
H-ras N17
H-ras V12
vector
H-ras wt
H-ras N17
H-ras V12
+ ASPP2
+ p53

24
B


ASPP2
ASPP1
p53
PCNA
RasV12
Bax-luciferase (x10000)/rlu
45
40
35
30
25
20
15
10
5
0
vector
ASPP1
ASPP2
p53
H-rasV12
K-rasV12
H-rasV12
K-rasV12
vector
H-RrasV12
K-RrasV12
vector
H-RrasV12
K-RrasV12
p53
ASPP1 + p53
ASPP2 + p53

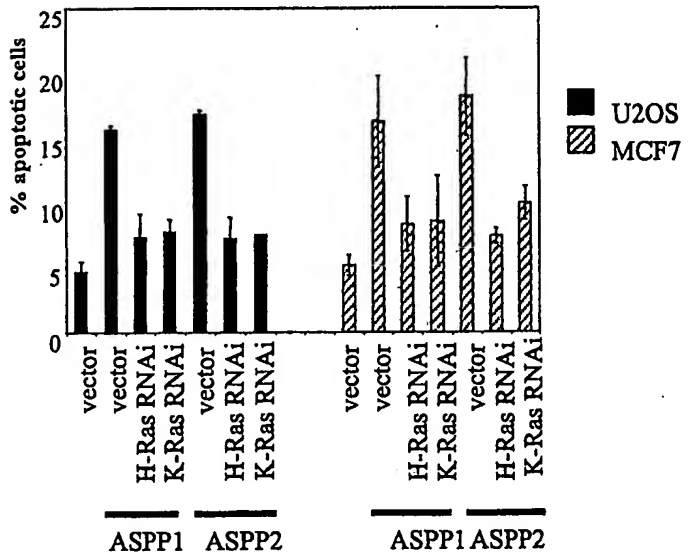

fold over p53 + ASPP1/2 (bax-luciferase reporter)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
vector
H-rasV12
K-rasV12
vector
H-rasV12
K-rasV12
p53 + ASPP1
p53 + ASPP2

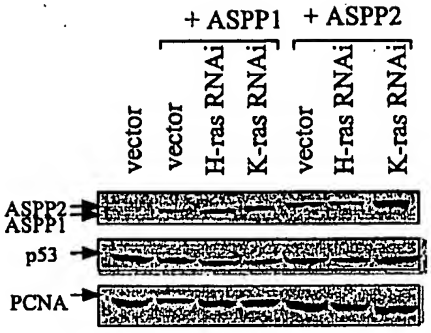
A


PIG3-10mer-luciferase (x10000)/rlu
35
30
25
20
15
10
5
0
control
H-ras RNAi
K-ras RNAi
vector
+ ASPP2
+ p53
+ ASPP2 + p53

25

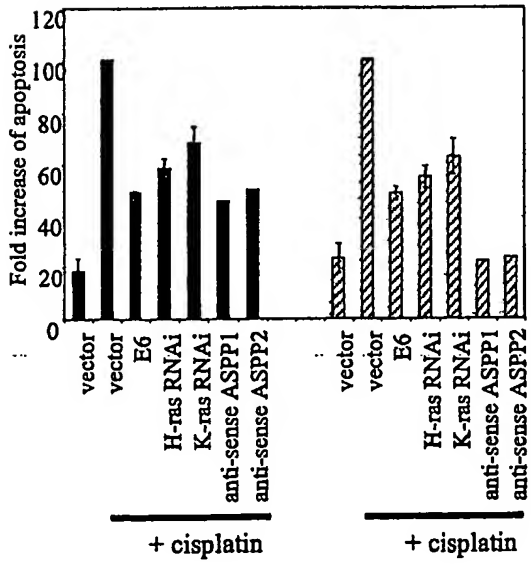
B


% apoptotic cells
25
20
15
10
5
0
vector
H-Ras RNAi
K-Ras RNAi
ASPP1
ASPP2
U2OS
MCF7

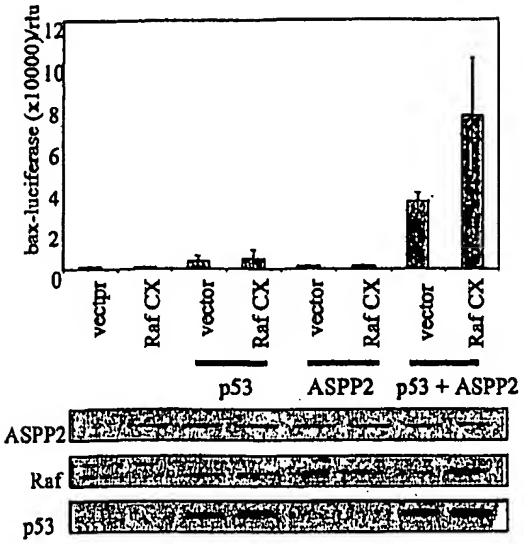

+ ASPP1
+ ASPP2
vector
H-ras RNAi
K-ras RNAi
ASPP2
ASPP1
p53
PCNA

25

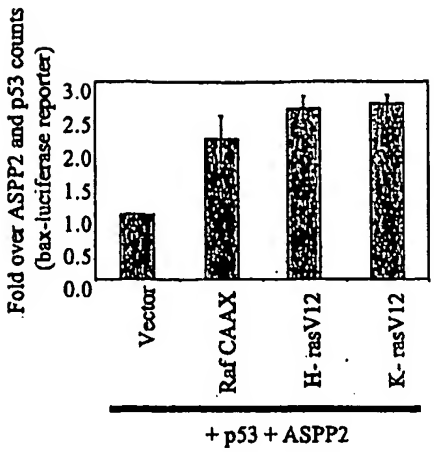
C


Fold increase of apoptosis
120
100
80
60
40
20
0
vector
E6
H-ras RNAi
K-ras RNAi
anti-sense ASPP1
anti-sense ASPP2
+ cisplatin

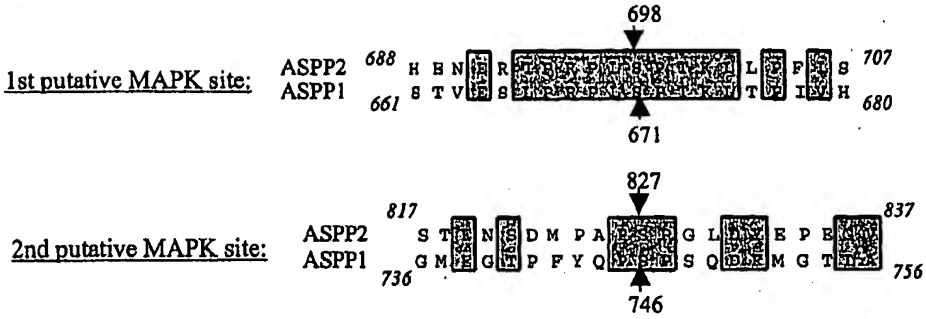
26
A



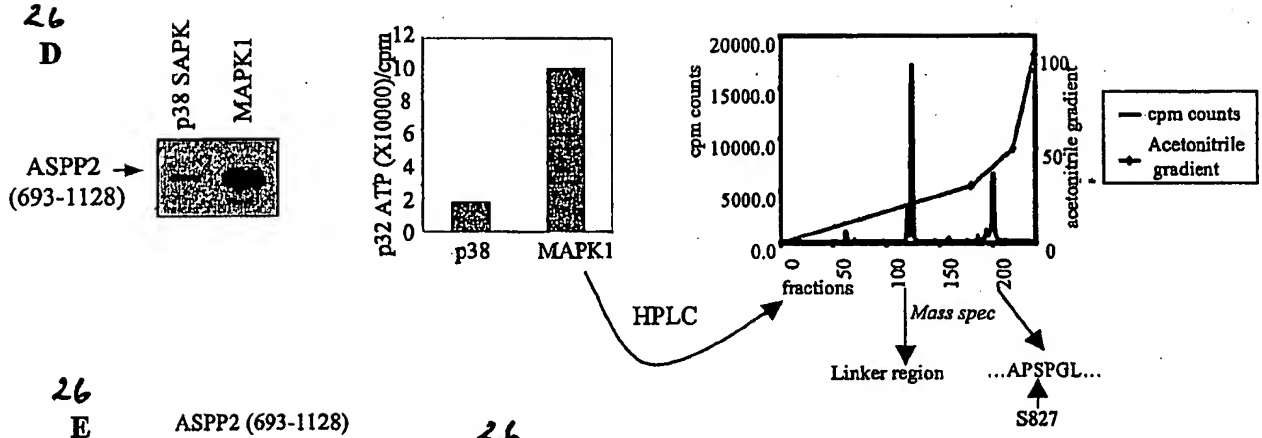
26
B



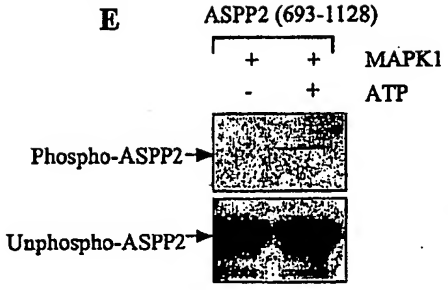
26
C



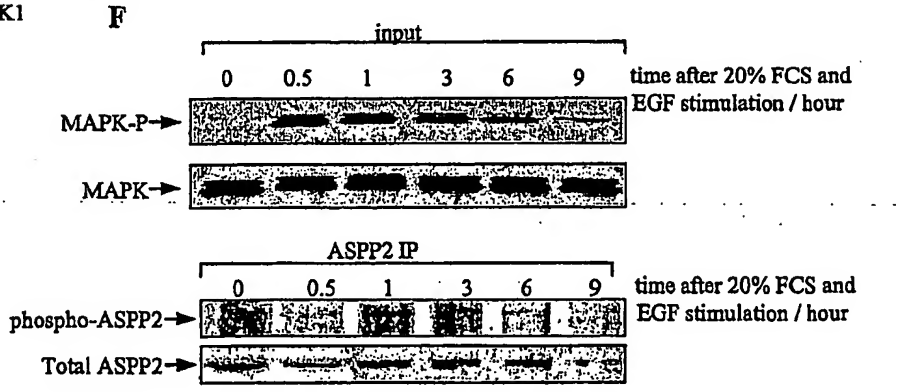
26
D



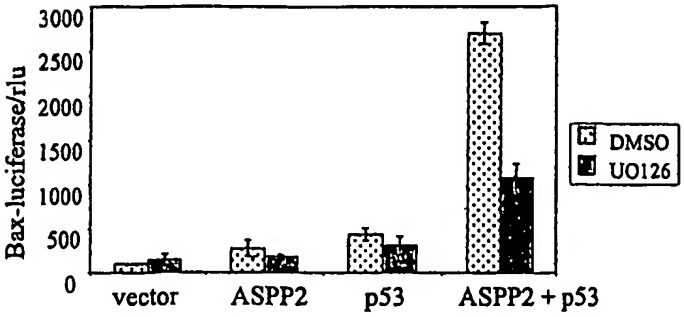
26
E

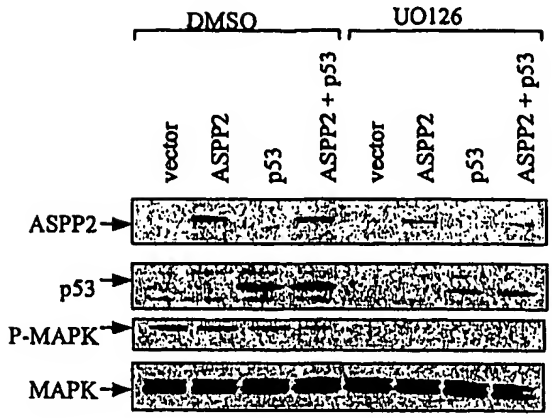


26
F

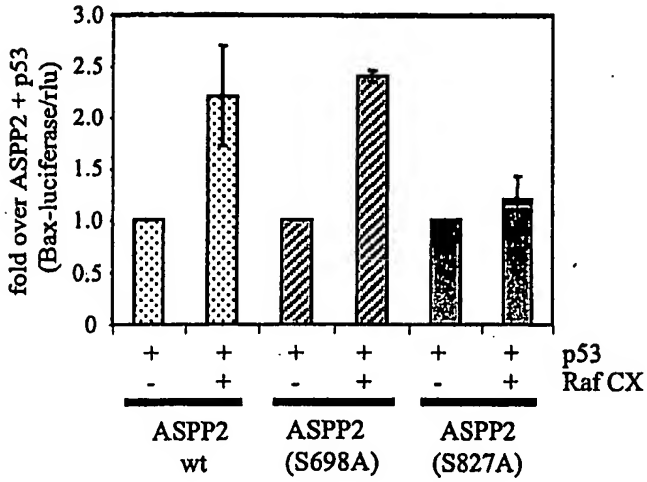


27
A

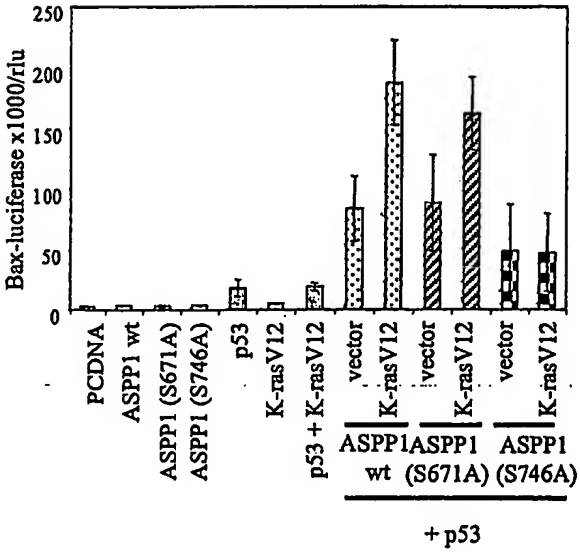

Bax-luciferase/rlu
3000
2500
2000
1500
1000
500
0
vector
ASPP2
p53
ASPP2 + p53
DMSO
UO126

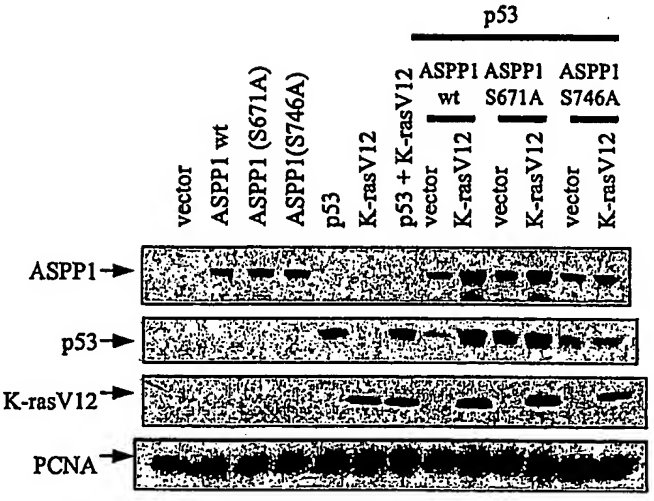

DMSO
UO126
vector
ASPP2
p53
ASPP2 + p53
ASPP2
p53
P-MAPK
MAPK

27
B


fold over ASPP2 + p53
(Bax-luciferase/rlu)
3.0
2.5
2.0
1.5
1.0
0.5
0
p53
Raf CX
ASPP2
wt
ASPP2
(S698A)
ASPP2
(S827A)

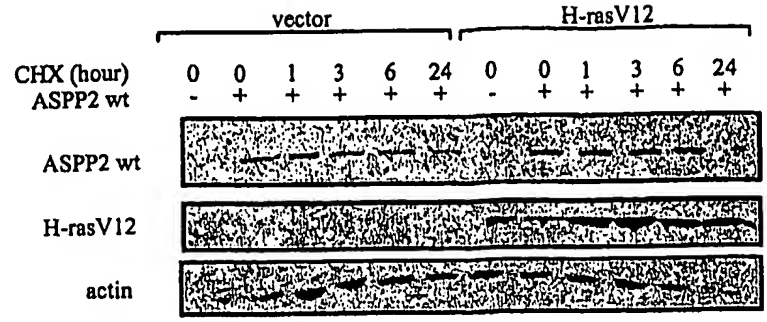
27
C


Bax-luciferase x1000/rlu
250
200
150
100
50
0
PCDNA
ASPP1 wt
ASPP1 (S671A)
ASPP1 (S746A)
p53
K-rasV12
p53 + K-rasV12
vector
K-rasV12
ASPP1 wt
ASPP1 (S671A)
ASPP1 (S746A)
+ p53


p53
vector
ASPP1 wt
ASPP1 (S671A)
ASPP1(S746A)
p53
K-rasV12
p53 + K-rasV12
ASPP1 wt
ASPP1 S671A
ASPP1 S746A
ASPP1
p53
K-rasV12
PCNA

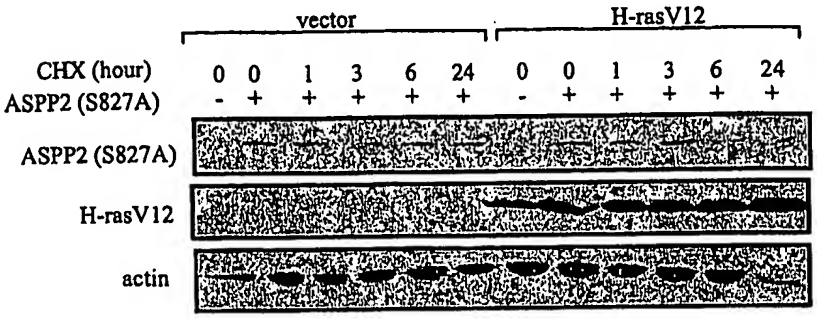
28

A



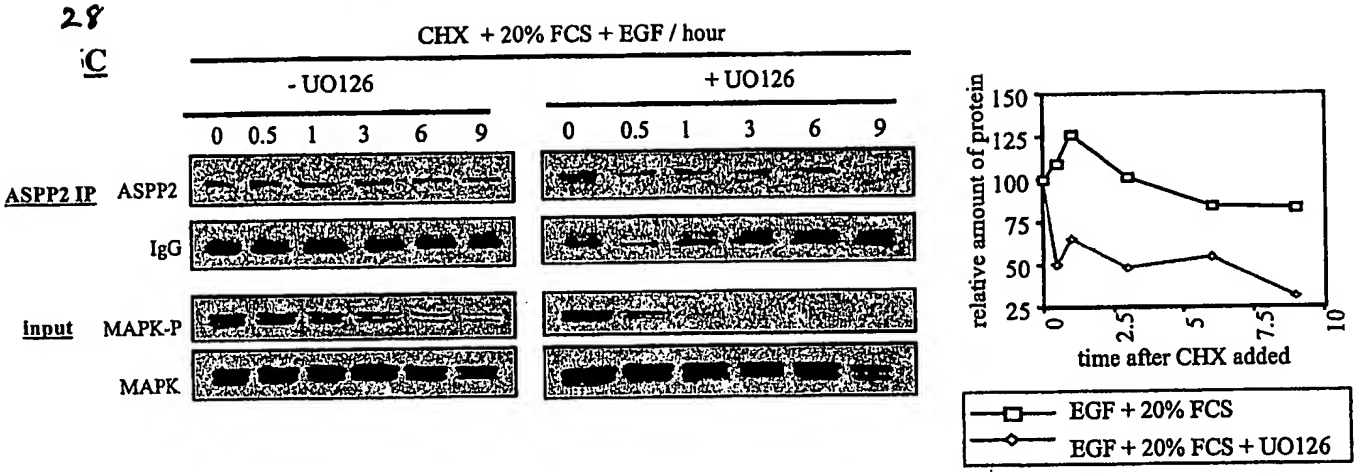
28

B



28

C



28

D